

## Street vendor sustainability: SMART communication approaches for green innovation

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### ABSTRACT

**Background:** Street vendors in Bandung City significantly contribute to economic development and job creation. However, many violate orderliness, cleanliness, and green zonation regulations. To cope with the problem, the Government of Bandung City initiates facilitation to empower the Micro, Small, and Medium Enterprises (MSME) to improve their business values and status and adopt the market development and preferences in terms of digital marketing, environmental friendliness, and green innovation. **Purpose:** The current research aimed to measure the improvement of street vendors' capabilities of utilizing communication technology and developing green innovation. **Methods:** The research used a quantitative approach with a questionnaire spread to the street vendors around the City. It was participated by 89 street vendors. **Result:** The research demonstrated positive and strong relationships between street vendors' skill, administration, and saving capabilities as independent variables and innovation as dependent variables. Meanwhile, the independent variable has less relation with innovation, which means they are still dependent on being capable of making green innovation. **Conclusion:** Referring to the research result, the facilitation and assistance programs should improve street vendors' business skills, particularly in green practices for innovation. **Implications:** The research revealed the strong capability of street vendors in using digital communication, such as social media and e-commerce. Nevertheless, further research is required to examine the relationship between digital media and e-commerce capabilities in the adoption of green innovation.

**Keywords:** Communication facilitators; innovation; street vendors; green innovation; SMART method

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## INTRODUCTION

The Government of Indonesia (GoI), in the National Mid-Terms Development Plan (RPJMN) 2020-2024, allocated a significant budget for empowering and facilitating the development of Micro, Small, and Medium Enterprises (MSMEs). All ministries and state-owned enterprises (SOEs) must involve MSMEs in a minimum of 40% of their procurement budget (BPK, 2021). Therefore, the Government also promote facilitation programs for MSME in all sectors to maximally utilize the opportunities. The privilege of MSME is relevant to its pivotal role in Indonesia's economy. The total volume of Indonesia's exports by the end of 2020 will increase by around 29% from the previous year. Likewise, the overall MSMEs' contribution to Indonesia's GDP in 2020 increased up to 61% and the entrepreneurship ratio to 3.55%. The targets in 2024 are that MSME exports reach the 30.20% level, the contribution to GDP is 65%, and the entrepreneurship ratio is 4% (Kusdiyanti et al., 2020).

There are about 65 million MSME entrepreneurs in 2023 (Junaidi, 2023), consisting of about 99% of the total entrepreneurs (including small, medium, and large businesses; however, the majority of MSMEs has not yet provided a significant contribution to the national economic growth (GDP). It is better to only have 1% of large businesses yet significantly contribute to Indonesia's GDP, up to 58%, and export portion up to 15,7%. MSMEs greatly contribute to creating works or businesses for about 121 million workers. In

2018, the work creation absorbed about 71% of the total Indonesian workforce of 170 million people (Bank Indonesia, 2019).

Recent studies by donor agencies, such as the World Bank, ADB, and EU, showed that MSMEs also started to contribute significantly to the development of the urban digital economy (Chen et al., 2023). The Indonesian digital economy is predicted to contribute 52.7 billion USD by 2025, more than half of the total digital economic revenue contribution (Ramli et al., 2020). In Indonesia, the contribution remains low due to the lack of human resources, finance, management organization, technology capability, and access to market information (Anam, 2019).

Street vendor (SV) is one form of MSME that is part of the micro-enterprises. They have become an inseparable part of the urban economy in Indonesia (Fathy & Rachmawan, 2020). Their inability to improve demands attention properly during development (Fathy & Rachmawan, 2020; Irwan et al., 2019; Pasciana et al., 2020). The active presence of numerous and various street vendors in many cities creates problems in urban development because of their lack of concern on the issues of environmental hygiene and well-ordered road regulations, and easily spark social unrest as a protest (Bhowmik, 2012; Boonjubun, 2017; Crossa, 2009).

Street vendors are being hated but simultaneously loved due to their direct contribution to improving poor people's economy and income opportunities, especially

when accessible opportunities in terms of formal employment are limited and very competitive. Street vendors are subjects of government responsibility and community assistance to elevate their capacity to comply with regulations and create continuous income to make them bankable (Dimas, 2008; Utami, 2010).

Street vendors are generally low in education and lack special skills (Utomo & Aziz, 2013). They must survive in a difficult situation that often forces them to disobey the law for survival (Smith & Metzger, 1998). Limited finance capacity, illegal trading locations, and hard business competition are the main problems that they faced (Batréau & Bonnet, 2016). A lack of business skills makes street vendors innovate (Economy, 2020; Sarker et al., 2019). Hence, a lack of innovation causes impediments in improving and developing their businesses. The crowded urban life, however, keeps providing gaps filled by informal workers or businesses. Law-abiding and environmentally complying street vendors in developed countries can significantly contribute to job-creating, reducing the poor, and strengthening the social-economy capacity of an urban area (Esayas & Mulugeta, 2020).

The recently developing business of E-commerce as an activity to distribute, sell, purchase, and market most products (both goods and services) (Alvara Strategic Research, 2019), combined with the availability of online delivery services, such as GOJEK and GRAB, has changed drastically the shopping

patterns of most Indonesian, especially in big cities like Bandung (Walandouw et al., 2018). E-commerce allows customers to search, shop, and make transactions anytime, anywhere, and for almost anything where the consumer is located.

To cope this problems and at time the emerging opportunities, the Indonesian Government, through the Office of Cooperatives and MSMEs, has run various efforts to improve street vendors' welfare through coaching and assisting efforts (Septiani, 2019). Nevertheless, the Government's efforts in coaching and assisting street vendors so far have not achieved an optimal result (Sulistiowati & Kusnanto, 2014). Assistance is still performed in one direction through sporadic activities, such as technical guidance, training, and internships (Tamsah et al., 2020). Gradual business assistance for street vendors which encourages them to develop in stages according to business management theory (Boediman & Sulhan, 2017). One of the obstacles is the absence of standard guidelines for entrepreneurial facilitators on how to take effective steps to carry out business coaching and assistance for street vendors to develop their businesses (Jamie & Oliver, 2020).

Public communication management has a pivotal role in implementing street vendors' development activity by disseminating information on regulations, providing knowledge of innovations, and providing guidelines for business, ICT, and financial literacy (ADB, 2016).

A product is often defined as a part of an integrated entity delivered to the market to attract attention, easy acquisition, planned use, or consumption that satisfies consumer needs. A product is not specifically tangible goods such as accommodation, food, household tools, or sophisticated computers but also intangible ones, such as services, thoughts, ideas, events, organizations, methods, people, places, or a combination of those items. Hence, services can be products of activities, processes, benefits, or satisfactions. Therefore, a product in a broad term defines all of these things, as explained in Figure 1 (Gurbuz, 2016).

Research by Kotler and Armstrong (2008) suggests several reasons why many new products fail to thrive. The first reason is to overestimate the size of the market. It can lead to overproduction, possibly resulting in significant losses to the profit. The possible next reason is

the new product's lack of design quality, which will not appeal to selective customers. The third reason is the lack of a market survey that causes production for the wrong market segment, such as selling high-end products in an economically troubled low-end market segment. The fourth possible reason is introducing new products or services to the market at a less appropriate time, for example, producing sophisticated technological products for common people to use during an economic recession when people are hesitant to spend money on products that are not required for their daily needs. The fifth reason is setting the price wrong, too expensive, or too cheap, which will result in lost profit. The last reason is an advertising failure, which can prevent the new products from being welcomed positively by the right customers. According to Philip Kotler and Kevin Lane Keller (2008), product development is a strategic effort to



Source: Gurbuz, 2016

**Figure 1 Components of a Product (material and non-material)**



Source: Drucker, 1998

**Figure 2 Factors Affecting Product Innovation**

ensure company growth by offering new or modified products to the market segments targeted.

Referring to Peter Drucker (1993), among the history-made innovations, those based on innovative knowledge, whether in terms of scientific, technical, or social novelty, ranked high (Figure 2). Usually, it takes a long time to gain new knowledge until its application level becomes a usable technology. Further, it needs another long period before this novel technology appears on the market regarding a product, process, or service. Overall, the possible grace period can span 50 years or more. However, in the current era of globalization, ideas and innovations can develop more intensively and rapidly because parties worldwide can contribute to developing these ideas or innovations (Ganne & Lundquist, 2019).

The development of sustainable or green products is being seriously considered in the world, especially innovations in environmentally friendly and sustainable products (Shamsi & Siddiqui, 2017). Current positive trends of sustainable or green product development and innovations are unsuitable for MSMEs. Careful adoption is required, especially sustainable products or services that can increase public economic sector and microfinance performance, product innovation to upgrade competitiveness, facilitate promotion and marketing, higher performance of employees, and strengthen sustainability or green reputation (Zaid H Alsharif & Tong, 2019). Specific outcomes that become the most important are those related to environmental qualities, such as reductions in carbon emissions, solid and toxic wastes, effluent of waste recycling, energy consumption

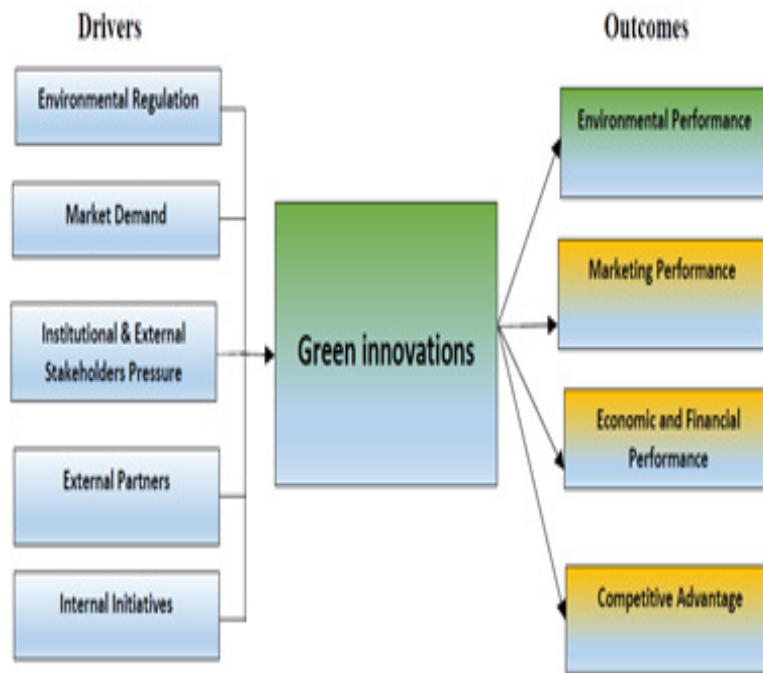
reduction, minimum consumption of toxic materials, and usage of inputs that can also reduce environmental accidents (Assumpção et al., 2019).

According to Howard et al. (2019), the development of environmentally friendly products must be based on green innovations and analysis of sustainable product life cycles as an instrument to measure the possible impact on the environment at every level while developing environmentally friendly goods or services. MSME businesses can focus on the three main dimensions of the environment in terms of green product innovation: energy efficiency, material efficiency, and prevention of pollution creation. Investments in innovation and technology for green production have strategic benefits and can act as main drivers to support green innovation in the MSME business process. This can provide a stimulus for more interactive dynamics with the internal and external business processes. Internally, MSMEs can specifically develop innovation for their organizations with simple rules and clear goals. In this fashion, innovation and green-specified technology concurrently build the MSME's performance and competitive advantage by minimizing environmental impacts by applying affordable but innovative technology in their daily process and operational system (Abdullah et al., 2016).

The application of green or environmentally friendly innovation by MSME will ensure that the green products developed are not only environmentally friendly but also sustainable

because the innovation process pays attention to macro, micro, and meso-factors that affect the sustainability aspect of the MSME's product or service (Francisco, 2018). According to Burki (2020), macro-level factors include instruments for policy enforcement, such as norms, standards, and regulations, subsidy facilities, MSME-friendly fiscal instruments and measures, specific education policies, applicable technology systems, national contexts duplicity, and regional issues cooperation. Factors at the micro-level are related to structural, strategy determination business logic, and required resources, including MSME human competence and capabilities. Moreover, Burki's study also identifies meso-factors, including the trend of market identification, stakeholder-based pressure groups, and collaborative networking, within the industry stance where MSME operates, which makes it possible to promote green innovation. Furthermore, to also pay attention to significant market factors that focus on environmentally friendly branding and imaging, political and institutional-based MSME stakeholder pressure, and external stakeholder supports, as well as the organization and technology-related capabilities of micro, small, and medium businesses are the main drivers in green innovation for MSME, Figure 3 (Burki, 2020).

The word "SMART" can refer to the vision of this method, namely the Micro, Small, and Medium Business community. Street vendors are expected to be smarter and smarter in business management. The word



Source: Burki, 2020

**Figure 3 Driving Factors (Driver) and Result (Outcome) for MSME Green Innovation**

“SMART” defines five targets to achieve in the implementation of coaching and mentoring street vendors, which are skilled human resources, independent business capital, good administration/bookkeeping, innovative business (focus on green aspects), and targeted savings/investment.

The research aimed to measure the developed capabilities of street vendors in adopting environmentally friendly or green-related innovations. The capabilities are expected results of the empowerment by the facilitators in assisting street vendors to attach their environmental awareness to their current SMART practices. The program is a part of Bandung City Government policy No.511.23/KEP.499.Dis.KUMKM/2017 regarding special task force for street vendor management and empowerment. The program’s objective is to

ensure that the City of Bandung is safer, cleaner, and disciplined. By adopting environmentally friendly or go-green practices, the street vendors become more efficient and are appreciated as they are no longer seedy, dirty, and untidy. The research is designed to evaluate and measure the effectiveness of street vendor facilitation using the SMART method. According to the city government program, the indicator of effectiveness is developed green innovation capability. Therefore, it assesses whether innovation is a dependent variable influenced by the role of other SMART factors, which are skill, independence, administration capability, and saving as independent variables.

**Table 1** Locations of street vendors in Bandung City

No	Location	Numbers
1	Monumen Perjuangan	400
2	Basement Alun-Alun	150
3	Taman Sari Food N Fest	32
4	Basement BIP	25
5	Basement Ujung Berung	82
6	Teras Cihampelas	192
7	Cibadak Culinary Night	50
8	Wisata Kuliner Pelangi Balonggede	41
9	Griya Buah Batu	31
10	Alun-Alun Regol	115
11	Car Free Day Rancasari	200
12	Purnawarman	53
13	Food Street Valkenet Malabar	18
14	Kebonjati	40
15	Suryakencana dan Hasanudin	44
16	Cicadas	602
17	Cikapundung Barat	104
Total		5779

Source: Researcher's data 2021

## RESEARCH METHOD

The Government of Bandung City, as the initiator of the MSME empowerment program for environmentally friendly businesses requires indicators of the program's successes in terms of street vendor improvements. In particular, the implementation employs the SMART method to empower and communicate environmental or green adoption by the MSMEs. The indicators will become a reference for the City of Bandung MSME and cooperative office preparing continuation programs to support the number of MSMEs whose business capabilities

prove an increase and facilitate from non-formal to formal business entities. This paper also refers to Article 5 point b of Law 20 of 2008 concerning Micro, Small, and Medium Enterprises (MSMEs), which are competitive, growing, and developing to become resilient and independent businesses (Pemkot Bandung, 2021).

The research used a quantitative approach to determine the relationship between two or more research variables using statistics (Sugiyono, 2013). The criteria of respondents are MSMEs (street vendors) that participate in the empowerment program, and their business locations are within the specific environmentally friendly or green zone as referred to by the regulation of Bandung City government.

The total population of the respondents was 5.779 vendors. They were recorded as management and empowerment program participants, as in Table 1.

The targeted respondents were specific to the street vendors with location and distribution, as mentioned in Table 1. The questionnaire consisted of respondent verification of improved knowledge, understanding, and know-how as the result of training and facilitation using the SMART method. To determine the number of survey respondents, it adopted purposive sampling criteria with Slovin's formula to figure out the sample size (Saragih et al., 2022), referring to the total homogenous population identified (street vendors), which is written as:

$$n = N / (1 + Ne^2)$$

Where:



n = Number of samples,  
 N = Total population, and  
 e = Error tolerance (level).

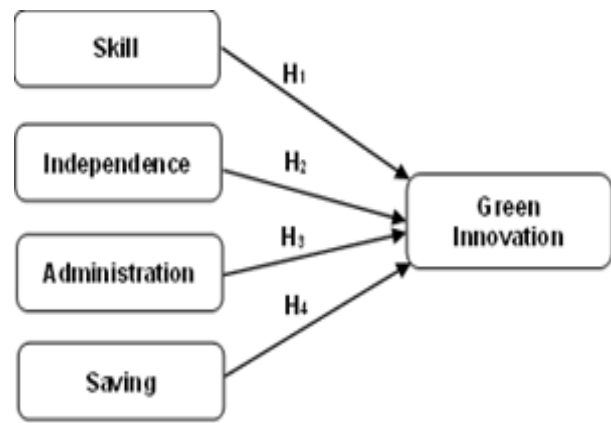
For a total population of 5.779 vendors and error tolerance of 1% (homogenous population), the formula given number of minimum respondents was 89 street vendors.

However, to sufficiently cover the 17 street vendors' locations, each location was allocated 10 questionnaires (170 in total) and completed by 142 street vendors as survey respondents.

The last step of this research was selecting interviews as verification and collecting perspectives from the related program organizers. The main organizers were officials from the City of Bandung MSME and Cooperative Office and leaders of the street vendors association of each surveyed location. The survey evaluated and measured the effectiveness of the SMART method implemented by the facilitators during empowerment programs. Each component of SMART was predicted as factors or variables related to or influenced the empowering level of the street vendors. To assess the relationship between the independent and dependent variables, a research model was developed as Figure 4.

Skill, Independence, Administration, and Saving are factors predicted to possess strong relationships and significant influence (independent variables) on the green innovation capacity of the street vendors (dependent variable).

These factors are operationalized into research variables. The independent variables



Source: Research, 2022

**Figure 4 Research Model**

that can explain the relation of the dependent variables consist of, the level of skill (H1), the level of independence (H2) in financing street vendors' businesses, the level of implementation of street vendors' financial administration (H3) neatness, and the level of saving (H4) capability to support their business sustainability. The dependent variable, namely the green innovation, were tested using descriptive and inferential statistics from the collected survey data. The hypothesis is proven valid if each independent variable has a strong and significant relationship to the green innovation effort.

**RESULTS AND DISCUSSION**

The Facilitator's approach to assisting the street vendors in terms of communication management serves as a pragmatic and constitutive tool or instrument to learn and understand the environment as a part of green innovation (Pezzullo & Cox, 2017).

The characteristics of MSMEs in Bandung City are: 1) unclear tasks, responsibilities, and delegations between administration, finance,

and operations management (most small businesses are unprofessionally managed in terms of rules and business procedures); 2) low access to formal credit institutions to banks, which is why MSMEs are called not bankable; 3) no legal entity status, which is why it is difficult for them to be officially recognized by associations; 4) a significant portion of MSMEs in F&B - approximately one-third of them operate in culinary sectors, such as beverages and handicrafts, textiles, and industries related to wood, bamboo, rattan, grass, and similar materials, including household furniture.

The duties and authorities of the regional Government in managing MSMEs are: (a) developing and formulating policies for operational and management in terms of MSME proper planning, specific fostering, and projected development; (b) providing efforts for protecting, fostering, empowering, and developing MSME to lead to reliable and trustworthy business entrepreneur; (c) promoting MSME so that they can compete in the market mechanism; (d) providing guidance for improvement and management of MSME; (e) fostering and developing the productivity of MSME; (f) implementing financing facilities and facilities for MSME; (g) assisting and opening access to the marketing of the products of MSME; (h) organizing improvement and development of human resource capacity and competence of MSME; (i) encouraging and strengthening the potential of MSME to grow the regional economy; and (j) encouraging the creation of new MSME based on professionalism

and reliable entrepreneurial character.

The number of MSMEs increasing their business capabilities is one indicator of achieving the target of increasing the quality of competitive MSME. According to Article 5 Point B of Law 20 of 2008 concerning Micro, Small, and Medium Enterprises (MSMEs), MSMEs must grow and develop their capabilities in order to become resilient and independent businesses. This is the basis for the indicator for the number of MSMEs that have increased their business capabilities. The rise in assets and turnover is used as the formula for calculating this statistic.

The indicator for the number of MSMEs whose business capabilities have increased has changed to the number of micro-businesses whose business has increased according to the authority of the MSME Cooperative Service which focuses on micro-business development. Indicator of the number of street vendors whose business capabilities have increased with measurement formulations according to the criteria of street vendors who have been relocated and/or verified as business and/or local arrangements and/or financial management and/or increased income and/or online marketing of street vendors and/or formation of organizations

Efforts have been made to build MSME, which are: (1) pioneering phase, the phase of business growth, which is characterized by the high motivation of individuals (Employees who will retire with the downsizing program) to open businesses. In this condition, information is given about what and how the business is

carried out. (2) The coaching phase, the phase where the business has been formed, requires guidance and coaching so that the business becomes more advanced; (3) the development phase, where the formal business unit has been formed from the motivation to increase efficiency and productivity. This business unit is directed at product diversification and quality improvement towards standards, both management and product quality, in addition to conducting training; (4) the independence phase, namely the phase where the small industry has established itself and can face national and global markets; (5) the main program phases of business development, which cover: (a) initiation development program and (b) productivity and efficiency development program.

The Collaboration Management Model for MSME Empowerment in Bandung City must promote a clear division of political aspects, funding mechanism, and administrative compliance (based on regulations), among parties that represent various institutions and different government levels, MSME-related civil communities, and the commitment to partnership (not only foresting) private sector. The system must be able to combine various aspects of decentralization norms, deconcentrating, and democratization requirement to effectively reach a level of balance between the rights and obligations of each stakeholder that take responsibility for empowering MSMEs (Purwidiyanti & Tubastuvi, 2019).

The SMART method in terms of communication management is a tool to develop street vendors' awareness and understanding of green innovation to improve acceptance of their activities in doing business. The green innovation creates a synergy of the existence of targeted street vendors to the whole city communities and business societies, including the Government, consumers (buyers), finance providers (financial institutions, partners, or investors), and other users of their services.

To collect data, surveys and interviews were carried out with 124 respondents the whole street vendors around the area of the research as per Table 1 above. The data collected is then classified based on the questionnaire types and planned period. This study used a quantitative approach and analysis to identify, analyze, and map the relationship and significant influence of independent and dependent factors using multiple linear regression analysis. Multiple linear-regression equations were applied:

$$Y = \alpha + \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

where:

Y: dependent variable, the level of the street vendor innovation,

$\alpha$ : constant,

$\beta$ : regression coefficient,

X1: level of business skill,

X2: level of business independent (in financing aspect),

X3: level of business administration (report neatness),

X4: level of business sustainability

**Table 2 Model Summary**

Model	R	(R Square)	(Adjusted R Square)	Std. Error of the Estimate)	Durbin-Watson
1	.999 <sup>a</sup>	.998	.996	.57840	2.557

Source: Research Results, 2022

(targeted saving),

$\epsilon$ : error.

The stages of multiple linear regression analysis include the classical assumption test, which consists of a normality test using the Kolmogorov-Smirnov test, a test for Skewness and Kurtosis, and plotting the graph of data distribution. An autocorrelation test is conducted to determine whether autocorrelation is present. It is obtained by performing a test of linearity and calculated coefficient of Durbin Watson. The multicollinearity test is obtained by examining the VIF and the value of tolerance. The heteroscedasticity test is obtained by using the Glejser test which checks the t significance and plots the graph of the scattered data.

Hypothesis statistical test that includes the four hypotheses of the research is proposed according to the results of the operationalization of variables. Those are:

H1: skills bring about a positive effect on business innovation.

H2: independence determines the type of business innovation,

H3: administrative neatness has a positive effect on the success of the innovation,

H4: business savings positively affect the sustainability of business innovation.

Referring to the results of multiple linear regression with SPSS version 22, the statistical analysis results obtained a value of adjusted R Square of 0.996. It means that the independent variable can explain 99.6%, of the dependent variable, and other factors explain the other 0.4% aspect (Table 2).

Thus, the research model can be used for predicting the relationship between the level of innovation as the dependent variable and the development of independent variables (skills, independence, administration, and saving) used in the model.

From ANOVA the table 3, for the 5% confidence level, the calculated F value is 517.87 with a significance of 0.000. Compared to the F table values where  $df_1 = k-1 = 3$  and  $df_2 = n-k = 10-4 = 6$ , the F table value is 4.76.  $H_0$  is rejected because of  $F_{count} > F_{table}$  and the significance of the F test  $< 0.05$ , meaning that the independent variables simultaneously influence the dependent variable.

From the coefficients in the table 4, for the 5% confidence level, the constant of regression equation value (B), t count, and the significance value for each independent variable is obtained. The t-test analysis compares the t-count of each independent variable with the available t-table.

**Table 3 ANOVA**

Model	Sum of S quares	(df)	Mean S Quare	F	Sig.
Regression	693.001	4	173.253	517.872	.000 <sup>b</sup>
Residual	1.673	5	.335		
Total	694.684	9			

Source: Research Results, 2022

**Table 4 Coefficients<sup>a</sup>**

Mode	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Betta	t	Sig.
1 (Constant)	-20.544	5.720		-3.592	.016
Skill	1.225	.032	1.055	37.748	.000
Independence	.010	.012	.020	.820	.449
Administration	.455	.076	.152	6.010	.002
Saving	.279	.048	.174	5.834	.002

Source: Research Results, 2022

The value of the t table is obtained from the t-table with the standard formula:  $t \text{ table} = (\alpha/2; n-k-1$  or as the residual value of df), then the obtained t table (0.25; 5) with the calculated value of 2.571.

The independent variable of Skill (H1), obtained a t-count value of 37.748 > t-table 2.571 and the significance value of t-test 0.000 <0.05. Therefore, Ho is rejected. It means that the Skill variable partially has a strong influence on the Innovation variable.

The independent variable independence (H2), obtained a t-count value of 0.820 < t-table 2.571 and a t-test significance value of 0.449 > 0.05. Therefore, Ho is accepted, which means the Independence variable partially does not affect the Innovation variable.

The independent variable Administration (H3), obtained a t-count value of 6.010 > t-table 2.571 and a t-test significance value of 0.002 < 0.05, so Ho is rejected, which means that the Administration variable partially influences the innovation variable.

The independent variable Saving (H4), obtained a t-count value of 5.834 > t-table 2.571 and a significance value of t-test 0.002 <0.05, so Ho is rejected, which means that variable Saving partially influences the innovation variable.

Based on the results of statistical analysis, the linear regression equation constants are obtained as follows:

$$Y = -20,544 + 1,225X_1 + 0,010X_2 + 0,455X_3 + 0,279X_4$$

The above equation and the results of the significance of the statistical test suggests that skill, independence, and saving either jointly or partially (individually), positively and significantly contribute to the level of green innovation capability of street vendors. However, Independence has no effect or contribution to the implementation of green innovation. It proves that the facilitator is effective in approaching aspects of skill improvement, administration, and saving. However, they still depend on other assistance and support to implement green innovation. The facilitator's communication management approach is appropriate and effective, considering that three of the four achievement targets show a significant effect, and one target is still positively affected, although not yet significant.

The facilitator's adoption of the SDGs principles improves these three aspects, thus encouraging street vendors to be more aware of environmental aspects. Likewise, the application of communication technology has successfully encouraged street vendors to improve skills and independence in determining market share, products, and selling prices by both offline and online media. Some MSMEs, including street vendors in the city of Bandung, have actively used various mass media as sources of information and innovation ideas, especially newspapers, magazines, radio, and the internet. Street vendors have also used the internet to spread information and promotions online by Email, forums, websites, and Facebook. However, few use Twitter and Instagram to

promote their brand (Gumilar & Zufan, 2014).

Considering the Industrial Revolution 4.0 era, which puts more concern on environmentally friendly products, and users or individuals prefer street vendors that are clean and environmentally friendly. Current government policies and public preferences for green products become good opportunities for street vendors to promote green innovation and adoption through various communication channels that support environmental communications (Assegaf et al., 2022). This method can be well applied with the coordination of several fields of work, namely, the field of planning, structuring, guidance, supervision, control, and law enforcement. Regarding entrepreneurship education of street vendors, the empowerment approach applies different approaches according to the characteristics and qualifications of street vendors since they have differences in absorption, mastery of technology, education, and socio-economics (Subekti et al., 2022).

To innovate in selling, they can bring up the characteristics of their respective products to increase people's interest (Wibowo & Haryokusumo, 2020). These street vendors are expected to develop into formal established businesses. Considering the great demands of their services in the middle to low economies that dominate urban areas, the Government and communities (buyers, academics, and NGOs) should promote close partnerships to empower them. This condition indicates that street vendors' development, structuring, and coaching must be holistically and comprehensively conducted

with perfect planning, empowerment, and continuous improvement. For this reason, commitment, assistance, and support from stakeholders are required to reach a conducive business environment and increase business values. The facilitator's communication strategy is applied using a systematic series of continuous and coherent activities, carried out tactically, that enable understanding of target audiences, identifying effective channels, and developing and promoting ideas and opinions through these channels to promote and sustain a certain type of behavior. This idea promote communication strategies to change behavior and planning to achieve the business goals (Pratiwi et al., 2018).

Nowadays, all kinds of goods can be sold online via the internet, even various culinary delights such as food and drinks (Yasundari, 2016). Street food vendors are competing to join online sales platforms, such as GoFood, GrabFood, and ShopeeFood to get customers online so that they can package their products as attractively as possible. Street vendors are beginning to adopt hygienic standards set by the platform providers, along with responding to buyers' preferences for environmentally friendly and sustainable practices. It includes the use of food-grade ingredients, recyclable packaging, minimal plastic materials, and other eco-friendly measures in response to the growing demand for green and sustainable options.

## CONCLUSION

To address the research questions, four independent variables - Skill, Independence, Administration, and Saving - demonstrate a strong correlation with the dependent variable, Innovation, as evidenced by an adjusted R Square value of 0.996. It means that the independent variable can explain 99.6% of the dependent variable, while other factors explain the other 0.4% aspect.

Referring to the ANOVA test, the F test is significant  $0,000 < 0.05$ , which means that the four independent variables tested simultaneously influence the dependent variable. Partially, there is a positive and significant relationship between the Skill (X1) of the street vendors with their innovation value, with a coefficient of 1,225. There is a positive and significant relationship between the Administration (X3) capability of the street vendors with their innovation value, with a coefficient of 0,455. There is also a positive and significant relationship between the Saving (X4) of the street vendors with their innovation value, with a coefficient of 0,279. Meanwhile, the Independence (X2) variable has a positive but weak or even no relationship with the innovation value. Therefore, H1, H2, and H3 are accepted as factors that positively impact the innovation capability and efforts of street vendors. H4 is rejected, which means street vendors still need assistance from the Government and other related parties.

MSME empowerment in terms of innovation can focus on the aspects that they are mostly still dependent on. In this case, street

vendors need all stakeholder's support. To enable them to access government facilitations, MSME can benefit maximally from NGO or academic empowerment programs, utilize the internet commercial (e-commerce) sites, cooperate effectively with mobile service providers (Gojek, Grab, Shopee, etc.) to meet broader markets and customers, and sustain their business using their good cash-flow under partnership with financial institutions, such as bank. SMART as a model of street vendor empowerment can meet its objective because of effective approaches and the good dedication of the facilitators.

Street vendors in Bandung City make a significant contribution to economic development and job creation, in this regard the development of the SMART method, with facilitation and mentoring programs is expected to improve street vendors' business skills. The research revealed the strong capability of street vendors in using digital communication, such as social media and e-commerce. Nevertheless, further research is required to examine the relationship between digital media and e-commerce capabilities in the adoption of green innovation. for this reason the improvement of street vendors capabilities of utilizing communication technology and developing green innovation will greatly support their business activities.

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