

**How to Cite:**

Ekadina, I. W., Budhi, M. K. S., Yasa, I. G. W. M., & Yuliarmi, N. N. (2022). The effect of farmer empowerment, social capital and the role of the government on farmer productivity in the Simantri program in Bali province. *International Journal of Health Sciences*, 6(S6), 191–198.  
<https://doi.org/10.53730/ijhs.v6nS6.9462>

# **The effect of farmer empowerment, social capital and the role of the government on farmer productivity in the Simantri program in Bali province**

**I Wayan Ekadina**

Economics and Business Faculty, Udayana University Bali – Indonesia  
Email: [wyekadina@gmail.com](mailto:wyekadina@gmail.com)

**Made Kembar Sri Budhi**

Economics and Business Faculty, Udayana University Bali – Indonesia

**I Gusti Wayan Murjana Yasa**

Economics and Business Faculty, Udayana University Bali – Indonesia

**Ni Nyoman Yuliarmi**

Economics and Business Faculty, Udayana University Bali – Indonesia

**Abstract**---Empowerment of farmers through the implementation of the Simantri Program as a whole, has not shown ideal conditions in several locations. As far as has been identified, there has been no research that reviews the role of farmer productivity in increasing the sustainability of farming businesses that are associated with farmer empowerment through the Simantri Program. The aims of this study were to analyze the effect of farmer empowerment, social capital and the role of the government on farmer productivity in the Simantri Program in Bali Province. This research was conducted on farmers who are members of Gapoktan and as Simantri participants in all districts/cities in Bali, with a total sample of 225 farmers. This research method uses qualitative by using literature review and interviews. The data collection methods used in this study were non-behavioral observation, structured interviews, and in-depth interviews. The findings in this study are farmer empowerment and social capital are able to increase farmer productivity but have not provided leverage to improve farming sustainability Contributions can practically be used by the government as a reference material for formulating and formulating programs, policies, and strategies to support the existence and existence of farmers so that they become

organizations or business units that strengthen the regional economy along with technological advances.

**Keywords**---farmer empowerment, social capital, government role, Simantri program

## **Research Background**

Indonesia, an agricultural country, makes the agricultural sector very important in the national economy and most of the Indonesian population lives in rural areas with a livelihood as farmers. Agricultural and rural development has considerable potential related to issues of contribution to the national economy through the results obtained from Gross Domestic Product (GDP) so that the agricultural sector is placed in a priority position for national development.

Productivity growth in the agricultural sector is essential if agricultural output grows fast enough to meet the demand for food and raw materials from steady population growth. Productivity growth in agriculture has been the subject of intense research over the last five decades (Oktavia et al., 2017). Evidence shows that productivity growth in the agricultural sector is entirely a function of productivity trends in each region (Oktavia et al., 2017).

Bali's economic transformation that has been going on so far has jumped from the agricultural sector to the service sector. This jump is due to the rapid development of tourism. However, the transformation has not been followed by an increase in productivity in the agricultural and tourism sectors. It can be seen that the productivity per worker in the agricultural sector in recent years (2017-2018) has not experienced a significant increase. In 2017 productivity per worker in the agricultural sector was 42.51 million/workers, and in 2018 it was 41.60 million/worker; meanwhile, in the tourism sector, especially the accommodation and food and drink sector, 2017 productivity per worker was 99.63 million. / worker, and in 2018 it was 98.10 million / worker.

Attention to agricultural problems, especially food, has long received the attention of experts. Sadono (2018) said there is an urgent need for food for a country's population that continues to develop, which has made various interested parties aware of their efforts to increase their food production. Policies in the agricultural sector have an essential contribution to efforts to increase productivity in agriculture. Asnawi (2014) explained that farmers' productivity and income could be increased by applying an integrated crop management model for lowland rice. Ningrum (2014) argues that utilizing regional potential (agriculture) is one of the strategies for increasing farmer productivity.

The Provincial Government of Bali has made various efforts through the initiation of the Simantri Program, and this sustainable program not only has an effect on the accumulation of livestock assets as a form of investment, development, and animal food sources but is also capable of being a potential for the development of farming or livestock agribusiness and integrated plant bases. Moreover, other businesses are based on local resources and are managed by Gapoktan. Anugrah

et al. (2014) added that other efforts that the Provincial Government has made in Bali related to the provision of organic fertilizers, bio urine products, as well as biogas along with its institutions are the efforts and expected impacts of plant-livestock integration activities as well as bureaucratic integration of several institutional institutions in Bali Province.

The number of Simantri Gapoktans for 2009-2020 has reached 750 Gapoktans in 9 regencies/cities in Bali Province. The aid funds distributed during this period reached more than 80 billion rupiahs from the Bali Provincial Budget and CSR (Bali Province Food Crops Agriculture Office, 2020).

Several previous studies have revealed the success rate of farmer empowerment through the Simantri Program in several areas. Darmayasa (2014) explained that the success rate of Simantri in Tabanan Regency in 2009-2011 was 3.27, which indicates that the success rate of Simantri carried out by implementing farmer groups is included in the reasonably successful category. Diantaringsih, Raka, and Budiasa (2014) in Jehem Village, Bangli Regency, revealed that the Simantri application could reduce the cost of using fertilizer, and the productivity of corn farming is higher than rice farming. Wibawa and Yasa (2013) explained that the effectiveness of the Integrated Agricultural System Program (SIMANTRI) in Kelating Village, Kerambitan District, Tabanan Regency was very effective and was proven to have a positive and significant impact on farmers' household income.

The existence of social capital is one of the most critical assets and becomes an adhesive tool in the implementation of agricultural activities. Moreover, social capital is essentially a set of values and norms which are a tangible manifestation of a dynamic institution (Wuysang, 2014). Social capital must be used as a value and culture, so it needs to be used sustainably and institutionalized. Revi's research (2018) concludes regarding the Effect of Social Capital on the Performance of Kopay Chili Farming in Payakumbuh City. Rahayu's research (2019) on the Effect of Social Capital on Farmer Productivity concludes that social capital significantly affects farmer productivity. If the productivity of farmers increases, it will affect increasing farm business performance.

The Simantri program, which was launched in 2010 based on the Decree of the Governor of Bali Number 29 of 2010 concerning the Sustainability of Farming Business, to increase the effectiveness of the program, especially in supporting the sustainability of farming and increasing the productivity of farmers' income while being able to maintain the sustainability of agricultural resources, the welfare of the community can be improved.

Decreased productivity and its causes. Then to attract interest in becoming a farmer, improving welfare, and reducing poverty in rural areas, it is essential to pay attention to the welfare of farmers. The Simantri program is a priority program to increase farmer productivity through communal cattle rearing and environmentally friendly agriculture through organic fertilizers (compost) and bio urine. This program is expected to realize the sustainability of rural farming and increase productivity in realizing sustainable agriculture.

## **Research Methods**

This research method uses qualitative by using literature review and interviews. The data collection methods used in this study were non-behavioral observation, structured interviews, and in-depth interviews. The population is all farmers participating in the Simantri Gapoktan who are members of 750 Gapoktan or a total of 1,749 farmers (Bali Province Food Crops Agriculture Office, 2021). From the number of farmers participating in Simantri, 225 farmers were taken as samples spread across regencies/cities throughout the province of Bali. They were distinguished between the Simantri Farmers Group that operates very well (businesses fattening cattle, compost fertilizer production, and biourine business), Simantri with moderate operations, namely Simatri whose gapoktan is running relatively well, but only fattening cattle, without producing compost and biourine). The highest number of Simantri are in Buleleng Regency, namely 150 gapoktans or 19.95 percent, while Denpasar City has the least number of Simantri, which are 6 gapoktans or 1.06 percent. The largest number of Simantri samples was in Gianyar Regency, namely 22 gapoktans or 19.47 percent, while Denpasar City had the least Simantri samples, namely 2 gapoktans or 1.77 percent. The largest number of farmer sample distributions in Gapoktan/Simantri were in Gianyar Regency, namely 44 farmers or 19.56 percent, while Denpasar City had the least number of sample distributions for Gapoktan/Simantri farmers, namely 4 farmers or 1.78 percent.

## **Discussion**

Farmer empowerment is reflected most dominantly by indicators of developing rural economic business institutions, followed by indicators of institutional and human resource development, further efforts to increase farmers' income, and development of organic agriculture. Compost productivity indicators (there is an increase in raw materials and/or compost but not all simantri farmer groups make compost, but cooperate in providing raw materials) play the most dominant role in reflecting the construct of farmer productivity, the rest is determined by food crop productivity, cattle husbandry productivity, fishery productivity, and biourine productivity.

The development of rural economic business institutions as the most appreciated indicator in efforts to empower farmers, is able to directly increase compost productivity as the main indicator of farmer productivity in collaboration in the form of providing compost raw materials in the Simantri Program in Bali Province. These results indicate that the Simantri Program is a form of program policy intervention from the Government which is considered to have a strong relationship with farmer productivity in the Province of Bali. Empowerment of farmers in the Simantri Program is intended to improve the pattern of integration and partnerships both internally in the agricultural sector, as well as between the agricultural sector and the non-agricultural sector; focusing activities on one area in an integrated manner; realizing environmentally friendly development in support of Organic Bali; and increase farmers' income in the agricultural, plantation, livestock and fishery sectors. Empowerment of farmers through the Simantri Program by local governments is the answer to efforts to correct the weaknesses of agricultural development policies that have prioritized a sectoral

approach. The Simantri program by the Bali Government is an effort to maintain Bali's natural fertility, so that the ultimate goal is to develop a simantri group for the welfare of member farmers (Parining, 2011).

In accordance with the description of the respondents described previously, it turns out that most of the respondents gave a high appreciation of the farmer empowerment variable and it was also indicated by the high mean value of all indicators and the significant outer loading value. This study is in line with the research of Syah, et.al (2012) with the title *The Influence of the Role of Extension Officers and Local Wisdom on the Adoption of Paddy Rice Innovations in Montasik District* which found that farmer empowerment through agricultural extension had a positive and significant effect on the adoption of lowland rice innovation so that it could increase farmer productivity. This research is also in line with the research of Sean, et.al (2018) which states that one tangible form of farmer empowerment is through agricultural extension activities. Counseling is done, for example, by providing information about new technologies and better ways to grow crops. The counseling aims to improve farmers' ability and skills in running their farming businesses to get more, better and diverse results. The better results can support the productivity of farmers.

Social capital which is indicated by norms, networks, and trust but is most reflected by norm indicators, has been proven to have an effect and provide leverage on farmer productivity in the Sumantri Program on the island of Bali. The positive correlation coefficient indicates this influence. The results of this study indicate that working social capital well can provide leverage in increasing farmers' productivity significantly.

In the development of the agricultural sector, social and cultural elements are one of the factors that determine the success of a country's economic development. In the culture of the Indonesian people, gotong royong is a legacy of noble values that are very valuable as social interaction and as social capital that plays a role in realizing mutual progress. Mentions that mutual assistance, mutual assistance, mutual reminding among individuals in village community entities reflect the spirit of reciprocity, trust, and the existence of social networks. This builds cohesiveness in the community to jointly carry out business activities and form business groups or associations, solve problems, and find solutions to improve the economy (Inayah, 2012).

Respondents need social capital to increase farmer productivity by meeting the economic needs of Gapoktan members and providing education to Gapoktan members about the Simantri Program. This can be seen from the descriptions of the respondents, who give a good appreciation of the social capital variable, which is indicated by the very high average value of all indicators and the significant outer loading value. Social capital is not only built by one individual but will lie in the tendency that grows in a community group to socialize in the form of participation as an essential part of the inherent values (Hasbullah, 2006). This means that social capital lies in the ability of a group of people or society in an association or association to involve themselves in a network of social relations. This social relationship is carried out in various social fabrics based on volunteerism, equality, freedom, and civility. The ability of group or community

members to always unite in a synergistic relationship pattern will significantly influence whether or not a farmer group's social capital is strong.

The influence of social capital has an impact on increasing compost productivity, which is the leading indicator of farmer productivity. This study is in line with the results of research by Dewi, et al. (2017) which explains that the need for social capital in the production process starting from the pre-production, production to post-production stages. Human development that is influenced by social capital includes the ability to solve various collective problems. In addition, De Krom (2017) mentions that social capital can be a bridge in efforts to mediate farmer participation, especially if it is associated with other stakeholders. Research by Rahayu (2019) on the Effect of Social Capital on Farmer Productivity concludes that social capital significantly affects farmer productivity. If the productivity of farmers increases, it will have an effect on increasing farm business performance. Rohmani et al. (2015) conducted a study of farmers in Sukoharjo Regency showing that the variables of farmer household social capital and the external environment significantly affect farmer productivity. Cahyono (2012) conducted a study entitled The Role of Social Capital in Improving the Welfare of Tobacco Farmers in Wonosobo Regency found that the values of trust in social capital are very dominant as the basis for rural communities to be used as capital in improving other functions such as increasing productivity and mutual benefit. The Government's role is reflected in the most dominant indicator by regulators, followed by indicators of facilitators and dynamists. The results of this study indicate that the functioning of the functions and roles of the Government through the relevant agencies can increase farmers' productivity in the Simantri program in Bali Province.

National development has become the Government's commitment to achieving increased agricultural development. The agricultural sector is one of the components of national development towards self-sufficiency in food to alleviate poverty. The important role of the agricultural sector in national development includes as an absorber of labor, contributing to gross domestic product, a source of foreign exchange, as well as driving the movement of other agricultural sectors. The role of the Government is expected to be able to raise the level of farmers' welfare.

This finding confirms that the Government's role can significantly increase farmers' productivity in the Simantri program in Bali Province. This research is in line with the research of Saridewi and Siregar (2010) and concludes that the role of the Government through agricultural extension workers and technology adoption in Tasikmalaya Regency is in synergy to increase rice production. This increase will have an impact on the welfare of farmers. Research by Nurdin, et.al (2014) with the title The Role of Local Governments in Empowering Corn Farming Communities in Biringbulu District, Gowa Regency concluded that the Government's role was very dominant in empowering farmers. To increase the role of the agricultural sector, it is necessary to provide guidance by the Government in the form of empowering farmers but without having to create dependence on the Government. Empowerment of farmers will be able to encourage increased productivity of farmers. In addition, research by Asnawi (2014); Dintaringsih, et al. (2014); and Shah, et al. (2012) concluded that the Government's role has a

positive and significant impact on farmer productivity including farmer income through the application of PTT regulations and being able to reduce fertilizer handling costs so that compost productivity increases.

## Conclusion

Empowerment of farmers, social capital, and the role of the Government can directly increase farmer productivity in the Simantri program in Bali Province. The findings of this study have been explored and studied with the right method so that they are able to answer the research problem as stated in the background. Theoretically, this research makes an important contribution in enriching scientific treasures. The results of the research are expected to make a practical contribution in relation to understanding how the role of farmer productivity is to realize farming sustainability and can be used as a reference material to strengthen the sustainability of business development and steps to increase farmer productivity in order to realize farming sustainability. The Government's role is reflected in the most dominant indicator by regulators, followed by indicators of facilitators and dynamists. The results of this study indicate that the functioning of the functions and roles of the Government through the relevant agencies can increase farmers' productivity in the Simantri program in Bali Province. Empowerment of farmers has been able to give meaning to farmer productivity and farming sustainability in the Simantri program in Bali Province. However, the lowest indicator of organic agriculture development from respondents is therefore agricultural empowerment needs to be improved. Trainings related to increasing agricultural empowerment should be carried out on an ongoing basis in order to provide benefits for farmers in the Simantri program in Bali Province.

## References

- Anugrah, I.S., Sarwoprasodjo, S., Suradisastra, K., & Purnaningsih, N. (2014). Sistem Pertanian Terintegrasi – SIMANTRI : Konsep, Pelaksanaan dan Perannya Dalam Pembangunan Pertanian di Provinsi Bali. *Forum Penelitian Agro Ekonomi*, Volume 32, No. 2, Desember 2014, pp. 157 - 176.
- Asnawi, Robet. (2014). Peningkatan Produktivitas dan Pendapatan Petani Melalui Penerapan Model Pengelolaan Tanaman Terpadu Padi Sawah di Kabupaten Pesawaran, Lampung. *Jurnal Penelitian Pertanian Terapan*, Vol. 14 (1):44-52.
- Cahyono, B., & Adhiatma, A. (2022, January). Peran modal sosial dalam peningkatan kesejahteraan masyarakat petani tembakau di Kabupaten Wonosobo. In Conference In Business, Accounting, And Management (CBAM) (Vol. 1, No. 1, pp. 131-144).
- Darmayasa, D.N. (2014). Tingkat Keberhasilan Sistem Pertanian Terintegrasi Di Kabupaten Tabanan. *DwijenAGRO* Vol. 4 No. 2.
- De Krom, M.P.M.M.(2017). Farmer participation in agri-environmental schemes: Regionalisation and the role of bridging social capital. *Land Use Policy*, Vol. 60, Pages 352-361. DOI:10.1016/j.landusepol.2016.10.026.
- Dewi, N.L.P.R., Utama, M.S., Yuliarmi, N.Y. (2017). Faktor-faktor Yang Mempengaruhi Produktivitas Usaha Tani dan Keberhasilan Program Simantri di Kabupaten Klungkung. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, 6(2): 701-728.

- Diantaringsih, D., Raka, I.D.N., Budiasa, I.M. (2014). Produktivitas Usaha Tani Pada Kawasan Simantri Di Kabupaten Bangli. *Agrimeta: Jurnal Pertanian Berbasis Keseimbangan Ekosistem*, Vol 6, No. 11, pp. 17 – 29.
- Hasbullah, J. 2006. *Social Capital (Menuju Keunggulan Budaya Manusia Indonesia)*, Penerbit MR-United Press Jakarta.
- Inayah. 2012. Peranan modal sosial dalam pembangunan. *Jurnal Pengembangan Humaniora*. 12(1):43-49.
- Ningrum, Epon. (2014). Pendayagunaan Potensi Wilayah Untuk Meningkatkan Produktivitas Petani. *Mimbar*, Vol. 30, No. 2 (Desember 2014): 181 – 188.
- Nurdin M, Nurmaeta S, Tahir M. 2014. Peran pemerintah dalam pemberdayaan masyarakat petani jagung di Kecamatan Biringbulu Kabupaten Gowa. *Otoritas: J Ilmu Pemerintah*. 4(1):66-78.
- Oktavia, Zulfanetti; Yulmardi. (2017). Analisis produktivitas tenaga kerja sektor pertanian di Sumatera. *Jurnal Paradigma Ekonomika* Vol. 12. No. 2, Juli - Desember 2017.
- Parining, N. (2011). Modal Sosial Dalam Pengembangan Simantri Untuk Pemberdayaan Petani di Bali. *DwijenAGRO* Vol. 2 No. 1.
- Rahayu, M. Sahnun (2019). *Jurnal Ekonomi Keuangan dan Kebijakan Publik (jekkp) Fakultas Ekonomi Universitas Islam Sumatera Utara*, Vol 1, No 2 (2019)
- Revi, dkk 2018. Pengaruh Norma Sosial Julu-Julu Tenaga Kerja Terhadap Kinerja Usahatani Cabai Kopay Di Kota Payakumbuh. <http://repository.ipb.ac.id/handle/123456789/95870>. Bogor Agricultural University (IPB)
- Rohmani, S. A. (2015). Dampak modal sosial dalam pengelolaan irigasi terhadap kesejahteraan petani di Kabupaten Sukoharjo Jawa Tengah.
- Saridewi, T. R., & Siregar, A. N. (2010). Hubungan antara peran penyuluh dan adopsi teknologi oleh petani terhadap peningkatan produksi padi di Kabupaten Tasikmalaya. *Jurnal Penyuluhan Pertanian*, 5 (1), 55-61.
- Sean fitria rohmawati laily, heru ribawanto, farida nurani. 2018. Pemberdayaan petani dalam meningkatkan ketahanan pangan (studi di desa betet, kecamatan ngronggot, kabupaten nganjuk). *Fakultas ilmu administrasi, universitas brawijaya, malang jurnal administrasi publik (jap)*, vol. 2, no. 1, hal. 147- 153.
- Wibawa, I.K.T., & Yasa, I.N.M.(2013). Efektivitas dan Dampak Program Simantri Terhadap Pendapatan dan Kesempatan Kerja Rumah Tangga Petani di Desa Kelating Kecamatan Kerambitan Kabupaten Tabanan. *E-Jurnal Ekonomi Pembangunan Universitas Udayana*, Vol. 2, No. 7, 314- 324.