# Farmers Motivation to Raising Cow on Bali Cattle Breeding Business (Case Study at Pelaga Village, Petang District, Badung Regency)

by I Gst. Agus Maha Putra

**Submission date:** 23-Sep-2023 09:59AM (UTC+0700)

**Submission ID:** 2174234056

File name: ding\_Business\_Case\_Study\_at\_Pelaga\_Village,\_Petang\_District,.pdf (707.09K)

Word count: 5848

Character count: 31343

## PAPER · OPEN ACCESS

Farmers Motivation to Raising Cow on Bali Cattle Breeding Business (Case Study at Pelaga Village, Petang District, Badung Regency)

To cite this article: I Gusti Agus Maha Putra Sanjaya and Nyoman Suparta 2019 10P Conf. Ser.: Earth Environ. Sci. 347 012124

View the article online for updates and enhancements.

doi:10.1088/1755-1315/347/1/012124

# Farmers Motivation to Raising Cow on Bali Cattle Breeding Business (Case Study at Pelaga Village, Petang District, Badung Regency)

# I Gusti Agus Maha Putra Sanjaya 1(a), Nyoman Suparta<sup>2</sup>

- <sup>1</sup> Animal Husbandry Department, Agriculture Faculty, Warmadewa University, Jl. Terompong No. 24, Sumerta Kelod, Denpasar-Bali, 80239, Indonesia.
- <sup>2</sup>Animal Husbandry Faculty, Udayana University, Jl. Raya Kampus UNUD, Kampus Bukit Jimbaran, Kuta Selatan, Badung-Bali, 803611, Indonesia.

Abstract. The aims of this study were to 1) analyze the motivation of farmers to raising cow on Bali cattle breeding business; 2) analyzing the influence of age, formal education, number of cattle ownership, knowledge, attitude, intensity of communication on the motivation of farmers to raising cow on Bali cattle breeding business. Structured questionnaires were used to obtain information from 20 respondents who are all members of Lila Mukti Livestock Farmers Group by census method. This study was conducted in May-June 2018 at Banjar Bukit Munduk Tiying, Pelaga Village, Petang District, Badung Regency, Bali Province. Data were analyzed descriptively and multiple linear regression analysis. The results showed: 1) The motivation of farmers to raising cow on Bali cattle breeding business is strong (score 80.80% from ideal maximum score 25); 2) The effect of the independent variable to dependent variables simultaneously is 92.5%. While the remaining 7.5% is explained by other variables not included in the model. As independent variable age, number of cattle ownership, knowledge, attitude, and intensity of communication proved to have a positive and significant effect on the motivation of farmers to raising cow on Bali cattle breeding business, whereas formal education had negative and no significant effect.

### 1. Introduction

The development of the livestock sector is absolutely necessary. The livestock sector plays an important role to meet the need of animal protein for the community. At present, Indonesia's population is estimated to have reached nearly 262 million people, the most needed steps are innovation in breeding, feeding, maintenance, and sanitation to increase livestock populations. Adequate livestock populations have an important role to achieve national food security. The population of beef cattle in 2017 is estimated at approximately 16.6 million or an increase of 3.59% from the previous year [1]. Furthermore, it was stated that domestic beef production in 2017 reached 75.403 tons, where the people's need for beef in 2018 reached 116,339 tons. Based on this data it can be concluded that domestic cattle production is only able to supply 64.81% of beef and the rest must be added by import.

Besides focusing on activities to fulfil and improve the quality of services in animal husbandry and animal health (breeding and animal health) in 2018 the Directorate General of Animal Husbandry and Animal Health also prioritizes activities to accelerate the increase in population and diversity of livestock [2]. The Badung Regency Government since 2014 has indeed paid considerable attention to the increase in the population of local cattle, namely Bali cattle. The real step taken by the government in 2015 is to conduct an artificial insemination program on productive cows with the hope that more

<sup>(</sup>a)Corresponding author: iga.sanjaya@gmail.com

doi:10.1088/1755-1315/347/1/012124

cows will be pregnant. The program that created by Badung Regency Government proved effective enough to increase the number of calves. From the results of this artificial insemination, 1,000 calves from three districts have been produced, namely 450 from Petang District, 200 from Abiansemal District, and 350 from Mengwi District [3].

Geographically, Badung Regency is the district closest to the Denpasar City (Capital of Bali Province). Apart from being one buffer district of the basic needs of Denpasar society, Badung Regency also has to fulfill the food needs independently. This double task must be carried out because Badung Regency is the area that receives the most tourists, both domestic and foreign tourists. Bali cattle breeding business is a pretty strategic business. Besides being useful for providing or fulfilling calf needs for breeders and germplasm conservation, this business also indirectly guarantees the availability of beef to the community continuously amid the limited land for the livestock and agriculture sector due to uncontrolled land conversion in Badung Regency.

To keep the interest of farmers in the operations of Bali cattle breeding, farmers need a strong motivation. Motivation is a psychological drive that can direct someone to realize their desires. Motivation can be interpreted as a change in energy in a person that is generally characterized by the emergence of feeling and preceded by a response to the goal to be achieved [4]. Farmers' motivation is strongly influenced by external factors and internal factors within the farmer itself. Motivation, in general, can be divided into two, namely: intrinsic motivation and extrinsic motivation. Intrinsic motivation is a motivation that comes from within an individual without external stimuli [5]. Furthermore, the extrinsic motivation is a motivation that comes from outside in the form of stimulus and factors other external sources that have thrust motivational.

Farmers' motivation in conducting their business activities is influenced by many factors. As has been reported [6] economic motivation, social motivation, and consolation motivation has a significant effect on activities of beef cattle livestock at Buru Regency, Maluku Province. In the other side, [7] said that the significant differences of characteristics between the local and the transmigrant farmers at Kairatu District, Seram Bagian Barat Regency were age (P<0.01), education level (P<0.01), the braveness in risk-taking (P<0.10), and working hours (P<0.05). The characteristics that had a significant impact on the motivation were farming experience (P<0.05), the number of dependants (P<0.05), the width of agricultural land (P<0.10), and farmers dummy (P<0.01). The characteristics that had a significant impact on income were age (P<0.05), education level (P<0.05), farming experience (P<0.10), cattle beef ownership (P<0.05), and farmer's dummy (P<0.05). The motivation of transmigrant farmers has positive relations to the income (P<0.10).

From the facts described above, it is interesting to conduct further research. This research aims to analyze the motivation of farmers to raising cow on Bali cattle breeding business and to analyze the influence of age, formal education, number of cattle ownership, knowledge, attitude, and the intensity of communication on the motivation of farmers to raising cow on Bali cattle breeding business.

### 2. Materials and Methods

This research was conducted in May to June 2018. The study was conducted at Lila Mukti Livestock Farmers Group which located in Banjar Bukit Munduk Tiying, Pelaga Village, Petang District, Badung Regency, Bali Province. The selection of research locations was carried out by purposive sampling, namely the selection of locations based on certain considerations. Several things considered include: 1) There has been an increase in the cattle population in the Badung Regency, Bali Province as a result of the effective implementation of artificial insemination (AI) programs and UPSUS SIWAB (Special Efforts of Mandatory Pregnant of Broodstock Cows), 2) Lila Mukti Livestock Farmers Group is a livestock group which specializes or focuses on Bali cattle breeding business, 3) Lila Mukti Livestock Farmers Group is classified quite successful in Bali cattle breeding by artificial insemination (AI).

Respondents in this study were cattle farmers who are members of Lila Mukti Livestock Farmers Group. Census method is the method used in sampling, considering the number of respondents who are not too many, namely 20 people and to obtain more accurate research results. Census is a method of taking respondents by taking all the analysis units from a population [8]. Data collection consists of primary and secondary data. Primary data is obtained through direct observation of livestock farmers who raise cows in Bali cattle breeding business. Because this study was designed as a research survey,

doi:10.1088/1755-1315/347/1/012124

the methods used in data collection were interviews directly to the respondents with questionnaire guide that lists the questions are structured. While secondary data is obtained from literature and related institutions and supported by the group's own data such as organizational structure, number of active members, and rules agreed upon in the group.

In this study, data were analyzed descriptively qualitative to determine the motivation of the respondents to raise cows on Bali cattle breeding business and multiple linear regression analysis was used to analyze the influence of age, formal education, number of cattle ownership, knowledge, attitudes, the intensity of communication on the motivation of farmers to raising cow on Bali cattle breeding business. Variables observed include: age (X1 in years), formal education (X2 in years), number of cattle ownership (X3 in livestock unit), meanwhile knowledge (X4), attitude (X5), intensity of communication (X6) and (Y) the motivation of farmers to raising cow on Bali cattle breeding business are measured in five categories, according to the scorers achieved (Table 1).

**Table 1.** Categories of Knowledge, Attitude, Intensity of Communication and Farmers Motivation to Raising Cow on Bali Cattle Breeding Business

No	Knowledge Level	Attitude Level	Intensity of Communication Level	Motivation Level	Score/Score Achievement (%)
1	Very	Very	Very	Very	1 (20 - 36)
	Low	Negative	Rarely	Weak	
2	Low	Negative	Rarely	Weak	2 (37 - 52)
3	Moderate	Doubtful	Moderate	Moderate	3 (53 - 68)
4	High	Positive	Often	Strong	4 (69 - 84)
5	Very	Very	Very Often	Very	5 (85 – 100)
	High	Positive	•	Strong	

Score on the X and Y variables is given based on the score achieved by each respondent according to the value of the answers given. Total score (values) for (X1), (X2), (X3), (X4), (X5), (X6), and (Y) are presented in percent (%) form based on the ideal maximum score [8], with the following formula (1):

$$\frac{X}{\text{IMS}} = X 100\% \tag{1}$$

Where X is the score achievement and SMI is the ideal maximum score.

In the questionnaire, the questions asked to obtain the level of knowledge, attitude, the intensity of communication, and motivation each consisting of five questions. Each question consists of five answers, for the least expected answers given a value of one, while the most expected is given a value of five so that the ideal maximum score for each variable is 25 (100%) and a minimum score of 5 (20%). To determine the motivation level of respondents to raise cows in Bali cattle breeding business, the data obtained were analyzed descriptively. To analyze the influence between variables X such as: age, formal education, number of cattle ownership, knowledge, attitudes, and intensity of communication on variable Y namely the motivation of farmers for raising cow on Bali cattle breeding business is used multiple linear regression analysis [9], with the following models (2):

$$Y1 = a + b1 x1 + b2 x2 + b3 x3 + b4 x4 + b5 x5 + b6 x6 + e$$
 (2)

Where Y is the motivation of respondents to raising cow on Bali cattle breeding business, a is intercept, B is variable coefficient, X1 is applied, X2 is formal education, X3 is the number of cattle ownership, X4 is knowledge, X5 is attitude, X6 is the intensity of communication, and e is error.

IOP Conf. Series: Earth and Environmental Science 347 (2019) 012124 doi:10.1088/1755-1315/347/1/012124

### 3. Results and Discussions

Bali Island has nine Regencies and a Municipality. Badung Regency is one of the regencies located in the middle of the island of Bali, stretching from north to south. Badung Regency has an area of 418.52 square kilometers consisting of 6 districts, including Petang, Abiansemal, Mengwi, Kuta Utara Selatan, and Kuta with 16 sub-district and 45 villages. Banjar Bukit Munduk Tiying, Pelaga Village which is the location in this study is one of the villages in Petang District. Pelaga Village is a village located in the highlands with an altitude of about 1017 meters above sea level with an area of 3,545.20 Ha. Pelaga Village is an area that has fertile enough land for agriculture and plantations. Various agricultural and plantation commodities are produced in this village such as rice, vegetables, coffee, chocolate, vanilla, cloves, strawberries and so on. In Pelaga Village only a few large livestock farmers groups raise Balinese cattle, either for fattening or breeding, one of which is Lila Mukti Livestock Farmers Group.

Lila Mukti Livestock Farmers Group is the one of Bali cattle breeder farmers group with breeding purposes which located in Badung Regency, Bali Province. This group has several objectives, namely: 1) As a gathering place for farmers in rural areas who have an important role in supporting government development programs, especially on animal husbandry sector; 2) Participate actively in supporting the achievement of the national beef self-sufficiency program by the government through Bali cattle breeding business; 3) Improve knowledge, skills, and as a tool for learning between group members with the aim of increasing the productivity, income, and welfare of group members. Lila Mukti Livestock Farmers Group was established in 2010. The group consists of 20 people whom all work as farmers.

Based on the results of the research it was found that the score of farmers level of motivation ranged from 72 percent (strong category) to 92 percent (very strong category), with an average of 80.80 percent (strong category) of the ideal maximum score of 25 (100 percent). Based on these results it is known that the farmers who joined in Lila Mukti Livestock Farmers Group members have a strong motivation to raise cows on Bali cattle breeding business. Motivation is a very powerful motivating factor for someone to do something. Motivation is a process that explains the intensity, direction, and perseverance of an effort to achieve a goal [10]. On the other side, [11] defined motivation as a process to influence or encourage someone or workgroup that comes from outside with the aim they want to carry out something that has been determined.

The existence of a farmers group is strongly influenced by the motivation of its members. With the strong motivation of group members, the group's common goals will be quickly achieved. The strong motivation of the respondents to raise a cow is an important thing to maintain this business from the various problems that will arise in the cattle breeding business in the future. As we know that the problem in cattle breeding is more complicated than cattle fattening. In addition, the strong motivation of the members of Lila Mukti Livestock Farmers Group will greatly assist the government in accelerating to the realization of beef self-sufficiency in Indonesia, especially in Bali Province. As has been reported [12] the farmers motivation level on raising cattle in Sambas District is classified as high. This result is marked by a motivational indicator that shows all farmers are motivated to raise cows with the aim of earning income to fulfil their needs.

### 3.1. Effect of Independent Variables on Dependent Variables

Data processing results using SPSS (Statistical Package for Social Sciences) version 25.0 are presented in Table 2. Based on Table 2, the results of the multiple linear regression equation are as follows:

$$Y = 6.636 + 0.300 X1 - 0.912 X2 + 0.496 X3 + 0.883 X4 + 0.199 X5 + 0.657 X6 + e$$
 (3)

From the multiple linear regression equation obtained the value of the regression coefficient of variable age (X1) is 0.300, number of cattle ownership (X3) value is 0.496, knowledge (X4) is 0.883, the attitude (X5) is 0.199, and intensity of communication (X6) value is 0.657. These five variables have a positive correlation, whereas the value of formal education (X2) is -0.912 had a negative correlation. These results indicate that all variables (6 variables) predicted to influence the motivation of farmers to raise cows on Bali cattle breeding business (Y) however only 1 variable is not unidirectional that is

doi:10.1088/1755-1315/347/1/012124

formal education (X2), meaning that each increase in formal education (X2) variables will cause a decline in farmer motivation to raise cows on Bali cattle breeding business (Y).

Meanwhile, for each increase in age variable (X1), number of cattle ownership (X3), knowledge (X4), attitude (X5), and the intensity of communication (X6) will cause an increase in farmers motivation to raising cow on Bali cattle breeding business (Y). With a constant value of 6.636 indicated that when independent variables such as age (X1), formal education (X2), number of cattle ownership (X3), knowledge (X4), attitude (X5), and intensity of communication (X6) equals zero, hence the motivation of farmers to raise cows on Bali cattle breeding business (Y) will be valuable 6.636. These results indicate that there are still other factors that influence the motivation of farmers to raise cows on Bali cattle breeding business.

**Table 2.** Multiple Linear Regression Analysis Results of the Effect of Independent Variables on Dependent Variables

Independent Variable	Dependent	Coefficients	t	Sig.	Explanation
	Variable	Regression (B)			
(Constant)	The motivation	6.636	.653	.632	
	of farmers to				
	raising cows on				
	Bali cattle				
	breeding				
	business (Y)				
Age (X1)		.300	.459	.007	*
Formal Education (X2)		912	970	.219	ns
Number of Cattle		.496	.599	.006	*
Ownership (X3)					
Knowledge (X4)		.883	.606	.029	*
Attitude (X5)		.199	.296	.012	*
Intensity of		.657	.635	.047	*
Communication (X6)					
Multiple R	= 0.962				
R Square	= 0.925				
Adj. R <sup>2</sup>	= 0.802				
F count	= 7.539				
Sig.	= 0.001				
α	= 0.05				

### 3.2. Effect Test Results of Simultaneous Independent Variables on Dependent Variables

It is known that the independent influence of variables such as: age (X1), formal education (X2), number of cattle ownership (X3), knowledge (X4), attitude (X5), and intensity of communication (X6) on the dependent variable, namely the motivation of farmers to raise cows on Bali cattle breeding business (Y) has R Square (R2) of 0.925 (Table 2). The determination coefficient means that the influence of independent variables on the dependent variable simultaneously is equal to 92.5%. While the remaining 7.5% is explained by other variables that are not included in the model. This is supported by the results of the significance test which shows that the value of sig. is 0.001 where this value is smaller than 0.05  $(0.001 \le 0.05)$ , which means that X1, X2, X3, X4, X5, and X6 simultaneously affect the variable Y.

### 3.3. Partial Effect Test Result of Independent Variable on Dependent Variables

The result of partial effect test (T-test) as presented in Table 2 shows that the formal education variable (X2) have a negative effect but not significant with sig value of 0.219 (sig value > 0.05). As described previously, although any increase in formal education variable (X2) will cause a decrease in the motivation of farmers to raising cows on Bali cattle breeding business (Y) it is not significant. This is caused by all farmers who are members of Lila Mukti Livestock Farmers Group have long enough

doi:10.1088/1755-1315/347/1/012124

experience in raising Bali cattle, ie since they were children. These factors are the cause although the level of education of respondent is higher, but the motivation to raising cow on Bali cattle breeding business is not significantly affected. This result is different with [13] who states that education level of the household has a significant and positive relationship with farmer decision to continue the farming activities as one of family's income activity. It further explained around 37% of the farmers had finished the primary level of education in Jordan. Meanwhile, according to the results of in-depth interviews in this study obtained information that the group members who finished elementary school as many as 7 people, junior high school as many as 3 people and the remaining 10 senior high school graduates. None of the respondents who completed education up to bachelor degree.

Five other variables such as: age (X1), number of cattle ownership (X3), knowledge (X4), attitude (X5), and intensity of communication (X6) shows results that are contrary to formal education variables (X2). These five variables show a positive and significant influence (sig value <0.05) on the motivation of farmers to raising cows on Bali cattle breeding business (Y). Age variable (X1) has a sig value of 0.007. When compared with  $\alpha = 0.05$ , the sig value is smaller than  $\alpha$  (0.007 <0.05) meaning that the variable X1 has a significant effect on the variable Y. With a beta value of 0.300, the age variable (X1) has a positive effect on the motivation of farmers to raising cows on Bali cattle breeding business (Y). On average the age of farmers is classified as productive age with an average age of 45 years. In addition, the increasing age of farmers will lead to an increase in their motivation to raise cattle on Bali cattle breeding business by 30%. This result is very reasonable because with the age increasing of the farmers there will be an increase in knowledge and experience in raising Bali cattle. The same result was also obtained by [14] which states that social factors include age, cultivated area, education, farming experience have a correlation with the motivation of farmers for cultivating organic rice in Central Java. The age which classified as socioeconomic factors have significantly influenced the farmers decision to continue farming in Jordan [13].

Number of cattle ownership variable (X3) has a sig value of 0.006. When compared with  $\alpha =$ 0.05, the sig value is smaller than  $\alpha$  (0.006 < 0.05) meaning that the variable X3 has a significant effect on the variable Y. The beta value of X3 to Y is obtained at 0.496 which means that the number of cattle ownership variable (X3) has a positive effect on the motivation of farmers to raising cows on Bali cattle breeding business (Y). For each increasing, the number of cattle ownership (X3) will cause an increase in their motivation to raise cattle on Bali cattle breeding business of 49.6%. Farmers who are members of Lila Mukti Livestock Farmers Group have a strong commitment to raising Balinese cattle to help the government in increasing Bali cattle population in order to succeed the beef self-sufficiency program in Indonesia. Therefore, any addition of cattle which come from the livestock purchase and the results of breeding will be raised properly and correctly in accordance with the management guidelines they have obtained from an extension program conducted annually by the government. Most farmers who are members of Lila Mukti Livestock Farmers Group (75%) raise 3 cows. Cattle farming in Indonesia is categorized as a small-scale business, where the number of beef cattle ownership generally ranges from 1 - 4 per farmers household [15]. This result did not differ much from [16] who found that on average in their cow-calf farming program, respondent farmers in east java owned 1-3 cows. Further said, household income from beef cattle farming business was affected by the number of cattle owned, cow ownership status, and cattle rearing location.

Knowledge variable (X4) has a sig value of 0.029. When compared with  $\alpha = 0.05$ , the sig value is smaller than  $\alpha$  (0.029 <0.05) meaning that the variable X4 has a significant effect on the variable Y. The beta value of X4 to Y is obtained at 0.883 which means that the knowledge variable (X4) has a positive effect on the motivation of farmers to raising cows on Bali cattle breeding business (Y). For each increase of knowledge (X4) will cause an increase in their motivation to raise cattle on Bali cattle breeding business of 88.3%. These results indicate that the more frequent respondents attending training and counseling will cause their motivation to raise Balinese cows will increase. There are five stages of a mental process starting from knowledge, persuasion, decision, implementation, to confirmation in one's decision to adopt an innovation [17]. In the future, it is expected that the number of training and extension activities will be increasingly added by the regional government, especially in Pelaga Village, Petang District. Most of the respondents (60%) have a very good knowledge and 40% remaining were classified as good in raising cows in Bali cattle breeding business. Base on the research [18] stated that

doi:10.1088/1755-1315/347/1/012124

the knowledge of breeders in Waji Village regarding artificial insemination technology is high because farmers have known the benefits of artificial insemination technology and have applied artificial insemination technology. The higher knowledge possessed by the farmers it will be easier to adopt to new innovations [19]. Further said, the lack of knowledge among farmers will cause low levels of productivity and limit them in holding new innovations.

Attitude variable (X5) has a sig value of 0.012. When compared with  $\alpha = 0.05$ , the sig value is smaller than  $\alpha$  (0.012 < 0.05) meaning that the variable X5 has a significant effect on the variable Y. The beta value of X5 to Y is obtained at 0.199 which means that the attitude variable (X5) has a positive effect on the motivation of farmers to raising cows on Bali cattle breeding business (Y). For each increasing of attitude (X5) will cause an increase in their motivation to raise cattle on Bali cattle breeding business of 19.9%. Increasing the positive attitude that is owned by the farmer will lead to changes in the behaviour of the farmer a more positive towards an innovation. The attitude is one of the factors that can influence the formation of behaviour [20]. There is a tendency that motivation or encouragement to fulfil or satisfy the needs contained in a person will influence his attitude, especially in the needs of an economic motivated [21]. The importance of the respondent having a positive attitude in his business will make their business still exist despite experiencing problems. A positive attitude from the farmers on his Bali cattle breeding business will make their motivation more increase. From the results of the data processing that has been done, it is found that 85% of respondents have a very positive attitude on raising cows in Bali cattle breeding business and 15% remaining have a positive attitude. This indicates that the most of respondents have a forming component of attitude individually such as cognitive, affective and conative which very positive for raising cows on Bali cattle breeding business. The cognitive component contains all thoughts and ideas related to the object of attitude; the affective component is a feeling statement about something when faced with an object of attitude; whereas the conative component is a tendency to do, which is a statement of behavioural intention [22].

Intensity of communication variable (X6) has a sig value of 0.047. When compared with  $\alpha = 0.05$ , the sig value is smaller than  $\alpha$  (0.047 < 0.05) meaning that the variable X6 has a significant effect on the variable Y. The beta value of X6 to Y is obtained at 0.657 which means that intensity of communication variable (X6) has a positive effect on the motivation of farmers to raising cows on Bali cattle breeding business (Y). For each increasing of intensity of communication (X6) between farmers and extension agents or among farmers will cause an increase in their motivation to raise cattle on Bali cattle breeding business of 65.7%. Positive information about raising cows on Bali cattle breeding business obtained by respondents from outside indeed will have a very positive impact on increasing their motivation. The more often a farmer's communicates with fellow farmers or to extension agents will cause an increase in the knowledge, experience, and motivation of the farmer himself. In the agricultural extension process, communication between extension agents and target farmers will not stop when the extension agent has finished delivering innovation, but often new communication stops if the target has responded with changes in knowledge, attitudes, and skills [19]. Effective communication will occur between farmers and extension agents or with fellow farmers if each is aware of the goals to be achieved. Communication is a social activity which is a general requirement for social interaction. Social interaction is a dynamic social relationship that involves relationships between individuals, between human groups, and between individuals and human groups [23]. Starting with the results of the research obtained, it is expected that the social interaction that is formed through intense communication between fellow farmers and between farmers with extension agents will be able to create a positive image of the Bali cattle breeding business so that farmers motivation will be maintained and can even continue to increase. It aims to further increase the population of Bali cattle, where it is known that the population of Bali cattle is always fluctuating every year.

### 4. Conclusions

The motivation of farmers to raising cow on Bali cattle breeding business ranged start from 72 percent (strong category) to 92 percent (very strong category), with an average of 80.80 percent (strong category) of the ideal maximum score of 25 (100 percent). The effect of the independent variable to dependent has R Square (R2) of 0.925. The determination coefficient means that the influence of independent variables on the dependent variable simultaneously is equal to 92.5%. While the remaining

IOP Conf. Series: Earth and Environmental Science 347 (2019) 012124 doi:10.1088/1755-1315/347/1/012124

7.5% is explained by other variables that are not included in the model. The independent variable such as age, number of cattle ownership, knowledge, attitude, and intensity of communication proved to have a positive and significant effect on the motivation of farmers to raising cow on Bali cattle breeding business, whereas formal education had negative and no significant effect. Number of cattle ownership proved has strongest effect on the motivation of farmers to raising cows on Bali cattle breeding business.

### References

- Badan Pusat Statistik. 2018. Populasi Sapi Potong Menurut Provinsi 2009 2017. https://www.bps.go.id/linkTableDinamis/view/id/1016
- [2] Diarmita, I K. 2018. Konsolidasi Akselerasi Pelaksanaan Siwab dan Penambahan Populasi Ternak Tahun 2018. Kementerian Pertanian Direktorat Jenderal Peternakan Dan Kesehatan Hewan. Jakarta. http://ditjenpkh.pertanian.go.id/percepatan-peningkatan-populasi-ternak-ini-yang-dilakukan-kementan-tahun-2018
- [3] Anonymous, 2016. Badung Panen 1.000 Godel Hasil Kawin Suntik. http://www.nusabali.com/berita/9038/badung-panen-1000-godel-hasil-kawin-suntik
- [4] Sardiman, A.M. 2006. Interaksi dan Motivasi Belajar Mengajar. PT. Raja Grafindo Perkasa. Jakarta.
- [5] Siregar E and Nara H. 2011. Teori Belajar dan Pembelajaran. Cetakan ke-2. Ghalia. Bogor-Indonesia.
- [6] Alam A, Dwijatmiko S, Sumekar W 2014. Farmers Motivation to Activities of Beef Cattle Livestock at Buru Regency Maluku Province. Agromedia Vol. 32 (2), September 2014.
- [7] Luanmase C M, Nurtini S, Haryadi F T 2011. Beef Cattle Farming Motivation of Local and Transmigrant Farmers and Its Effect On The Income At Kairatu District, Seram Bagian Barat Regency. Bulletin Peternakan Vol. 35 (2), pp 113-123, June 2011 ISSN 0126-4400 http://download.portalgaruda.org/article.php?article=68030&val=299
- [8] Singarimbun M and Effendi S. 2006. Metode Penelitian Survai. Edisi Revisi. LP3ES, Jakarta.
- [9] Sugiyono, 2010. Metode Penelitian Bisnis. Alfabeta. Bandung.
- [10] Robbins S P and Judge T A. 2008. Perilaku Organisasi. Buku 1, Edisi 12.. Salemba Empat.
- [11] Samsudin S. 2005. Manajemen Sumber Daya Manusia. Pustaka Setia. Bandung.
- [12] Harmoko, 2017. Tingkat Motivasi Petani Dalam Beternak Sapi Di Kecamatan Sambas Kabupaten Sambas. JSEP (Journal of Social And Agricultural Economics) Vol. 10 (1), Maret 2017. https://jurnal.unej.ac.id/index.php/JSEP/article/view/5217
- [13] Alassaf, A, Mohamad M, Oraib N. 2011. Factors Affecting Farmers Decision To Continue Farm Activity In Marginal Areas Of Jordan. African Journal of Agricultural Research Vol. 6 (12), pp. 2755-2760, 18 June 2011. DOI: 10.5897/AJAR 11.481 ISSN 1991-637X©2011. https://www.researchgate.net/publication/266447371\_Factors\_affecting\_farmers\_decision\_to\_c ontinue\_farm\_activity\_in\_marginal\_areas\_of\_Jordan
- [14] Dalmiyatun T, Eddy B T, Sumekar W, Mardiningsih D. 2017. The motivation of Farmers to Cultivate Organic Rice in Central Java. International Symposium on Food and Agro-biodiversity (ISFA) 2017 IOP Publishing. IOP Conf. Series: Earth and Environmental Science 102 (2018) 012043 DOI: 10.1088/1755-1315/102/1/012043. http://iopscience.iop.org/article/10.1088/1755-1315/102/1/012043/pdf
- [15] Widiyazid I K S, Suyasa I N, Parwati I A, Guntoro S, Yasa R. 1999. Analysis of beef cattle fattening farming in various technology inputs. Proceedings of the National Seminar on Animal and Veterinary Technology. Animal Husbandry Research and Development Center. Bogor. pp. 475-485.
- [16] Kalangi L S, Yusman S, Sri Utami K, Atien P. 2014. The Characteristics of Cattle Farmer Households and the Income of Cattle Farming Businesses in East Java. IOSR Journal of Agriculture and Veterinary Science (IOSR-JAVS) e-ISSN: 2319-2380, p-ISSN: 2319-2372. Vol 7, Issue 12 Ver. IV (Dec. 2014), pp. 29-34 DOI: 10.9790/2380-071242934 http://www.iosrjournals.org/iosr-javs/papers/vol7-issue12/Version-4/G071242934.pdf

IOP Conf. Series: Earth and Environmental Science 347 (2019) 012124 doi:10.1088/1755-1315/347/1/012124

- [17] Rogers, E.M., 1995. Diffusion of innovations. New York: Free Press.
- [18] Syatra U, Sofyan N K, Aslina A. 2016. Influence of Knowledge, Motivation, and Costs of Artificial Insemination toward AI Technology Adoption Beef Cattle Breeders in Waji Village, Tellu Siattinge District, Bone Regency. Journal of Animal Husbandry and Industry – Vol. 3 No. 2, June 2016. http://journal.uin-alauddin.ac.id/index.php/jiip/article/view/3912/3566
- [19] Mardikanto, 1993. Penyuluhan Pembangunan Pertanian, Acuan Untuk Pelajar, Mahasiswa, Dosen, Penyuluh, Pekerja Sosial, Penentu Kebijakan dan Peminat Ilmu/Kegiatan Penyuluhan Pembangunan. Sebelas Maret University Press. Surakarta.
- [20] Wursanto I. 2002. Dasar-Dasar Ilmu Organisasi. ANDI, Yogyakarta.
- [21] As'ad, Moh. 1996. Psikologi Industri (Edisi Keempat, Cetakan Kedua). Liberty, Yogyakarta.
- [22] Sarwono SW and Meinarno E A. 2009. Psikologi Sosial. Salemba Humanika, Jakarta.
- [23] Soekanto, 2012. Sosiologi Suatu Pengantar. Cetakan Ke-44. PT. Rajagrafindo Persada, Jakarta.

Farmers Motivation to Raising Cow on Bali Cattle Breeding Business (Case Study at Pelaga Village, Petang District, Badung Regency)

**ORIGINALITY REPORT** 

6% SIMILARITY INDEX

4%
INTERNET SOURCES

1%
PUBLICATIONS

**3**% STUDENT PAPERS

MATCH ALL SOURCES (ONLY SELECTED SOURCE PRINTED)

2%

★ S Sukaryo, M R Akmalputra, S Romadhon, Y Yanti, S D Volkandari, P Sudrajad, T A Bramastya, M Cahyadi. "Polymorphisms of the PLAG1 and their relationships with body measurements and carcass traits of Ongole crossbred cattle", IOP Conference Series: Earth and Environmental Science, 2023

Exclude quotes O

Exclude bibliography O

Exclude matches

< 1%

# Farmers Motivation to Raising Cow on Bali Cattle Breeding Business (Case Study at Pelaga Village, Petang District, Badung Regency)

GRADEMARK REPORT	
FINAL GRADE	GENERAL COMMENTS
/0	
PAGE 1	
PAGE 2	
PAGE 3	
PAGE 4	
PAGE 5	
PAGE 6	
PAGE 7	
PAGE 8	
PAGE 9	
PAGE 10	