26 The correlation between farmers motivation and perception with commitment to raising buffalo in Pemalang Regency

by Yn Wakhidati

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The correlation between farmers motivation and perception with commitment to raising buffalo in Pemalang Regency

K Muatip, H Purwaningsih, A Enstein, O E Djatmiko, S Mastuti, N N Hidayat, R Widiyanti, Y N Wakhidati, L Safitri, and D N Cahyo

Faculty of Animal Science, Jenderal Soedirman University, Purwokerto, Indonesia

Corresponding email: krismiwati.muatip@unsoed.ac.id

Abstract. This study aimed to determine the motivation and perception of buffalo farmers and their commitment to raising buffalo and to identify the correlation between motivation and perception with the commitment of buffalo farmers to maintain buffalo in the Pemalang Regency. The research used survey method. The determination of the area was carried out purposively in Pemalang Regency with the largest buffalo population in Central Java. Four sub-districts with large buffalo populations were chosen such as Taman, Pemalang, Bantarbolang, and Belik sub-districts. One of the village with the largest buffalo population was selected for each selected sub-district. Respondents were taken randomly and the number of respondents was determined using the Slovin formula with a margin of error of 10%, obtaining 212 respondents. The analytical method used was descriptive analysis and rank spearman. The results showed that the motivation of buffalo farmers with the medium to the high category, the perception of farmers was in the high category, and the commitment of buffalo farmers was in the medium to high category. The correlation between the motivation and perception with the commitment of farmers to raising buffalo was in a strong category (0.590 and 0.531).

1. Introduction

Pemalang Regency is located in the northern part of Central Java Province whose territory includes coastal areas in the north, lowlands in the middle, and highlands in the south. Much livestock was farmed by the community in Pemalang Regency, one of which is buffalo. The population of buffalo in the Pemalang Regency is the highest in Central Java that is 8,267 heads [1]. It is because the area supports the availability of sufficient forage, the climate is suitable for buffaloes and it is supported by the socio-economic community, most of whom are the farmers. Agriculture and animal production in Pemalang Regency are run synergically. Buffalo farmers use agricultural waste to feed buffalo and use buffalo dung as fertilizer for their crops. However, there is a tendency that buffalo farming is still used as a side business or for savings. Because the farming purpose isn't oriented as the main source of family income, the farmers did not run it properly. The buffalo breeding system in Pemalang Regency is carried out intensively and semi-intensively. However, the most farmers have been raising livestock in groups by building cages on the banks of a large rivers. Following the nature of buffaloes that was like wallowing. The success of the buffalo farming development is determined by the environment and needs to be supported by the farmers committed to their livestock business. According to Tania [2], the commitment to the organization is a condition that the employee takes sides with an organization and its goals, and intends to maintain membership in the organization. Commitment is the identification and relationship of a relatively strong person to an organization/business. High commitment results in good work

performance marked by high livestock productivity and high income. It is because commitment will affect the behavior as carried out by Rusdiana et al [3]. It is expected that with the commitment of buffalo breeders, the buffalo population in Pemalang Regency can increase so that they can support the government in fulfilling the self-sufficiency. Based on the statement above, this research aimed to determine the motivation and perception of buffalo farmers and their commitment to raising buffalo and the correlation between motivation and perception with the commitment of buffalo farmers to raising their buffalo in the Pemalang Regency.

2. Material and methods

The target of this research was buffalo farmers in Pemalang Regency. The research method used was survey method. The area was determined purposively, namely in Pemalang Regency with the highest buffalo population in Central Java. The sub-districts were taken into 4 sub-districts with large population of buffalo, namely Taman, Pemalang, Bantarbolang, and Belik sub-districts. From each of the selected sub-districts, two villages with a high population of buffalo were selected. Taman District was represented by Kejambon (-6.929131208428835, 109.42286844367457) and North Jebed (-6.92559934613014, 109.41474817145156) Villages, Pemalang District was represented by Surajaya (-6.9675585445463035, 109.35854605097505) and Pegongsoran (-6.963802535000119, 109.38747494801326) Villages, Bantarbolang District was represented by Wanarata (-7.096611260257805, 109.39852280880581) and Paguyangan (-6.979385072312427, 109.41187761809908) Villages, and Belik District was represented by Gunungjaya (-7.153186890487491, 109.37779913683752) and Mendelem (-7.15929579898013, 109.33221117927398). The respondents were taken randomly and the number of respondents was determined using the Slovin formula with a margin of error of 10%. There were 212 respondents based on the formula used.

The level of motivation, perception, and commitment of respondents was measured by the Likert scale. The data were presented in percentages (%) based on the maximum score. The descriptive method was conducted to analyze the motivation, perception, and commitment of buffalo farmers in the Pemalang Regency to raise buffalo. The operational definition of these variables can be seen in Table 1.

Table 1. Variables operational definition and type of measurement

Variables	Definition	Type of Measurement
Motivation	Motivation is the force that enables a person to act towards a certain goal.	Likert scale
Perception	Perception is the process of individual treatment, giving responses, meanings, descriptions, or interpretations of as seen, heard, or felt by the senses in the form of attitudes, opinions, and behavior, referred to as individual behavior.	Likert scale
Commitment	Commitment is a basic attitude inherent in the heart and mind, that controls personal behavior through the agreement at the beginning.	Likert scale

To determine the percentage score interval, a category was made using the class interval formula as follows:

$$x = \frac{Highest\ score - Lowest\ score}{Number\ of\ interval}$$

Spearman's rank analysis mentioned by Sugiyono [4] was used to analyze the correlation between motivation and perception with buffalo farmers commitment to their business development in the Pemalang Regency. The Spearman rank correlation formula is mentioned below.

$$the\ \rho = 1 - \frac{6 \sum b_i^2}{n\ (n^2 - 1)}$$

The ρ symbol is the Spearman rank correlation coefficient. The b_i symbol is Variable of Xi-Yi data ranking. The n symbol is the number of respondents. The assessment criteria for the Spearman rank correlation are mentioned in Table 2.

Table 2. Assessment criteria for the Spearman rank correlation

Scores	Rank Spearman Correlation Criteria
0.00	No Correlation between the Two Variables
0.00-0.25	Very Weak Correlation
0.25-0.50	Fairly Weak Correlation
0.50-0.75	Strong Correlation
0.75-0.99	Very Strong Correlation
1	Perfect Correlation

3. Result and discussion

3.1. Farmer motivation
Motivation is a force that empowers people to act based on their goals [5]. Work motivation can be the stimulus and direct the workers behavior to carry out the responsibilities [6]. The motivations of buffalo farmers can be seen in Table 3.

Table 3. Buffalo farmer existence motivation, relatedness motivation, and growth motivation

Variables		Low	Medium	High
Existence Motivation	Count	3	120	89
	%	1.42	56.60	41.98
Relatedness Motivation	Count	8	12	192
	%	3.77	5.66	90.57
Growth Motivation	Count	20	150	42
	%	9.43	70.76	19.81

The results in Table 3 showed that the existing motivation of buffalo farmers was in the medium category. It means that breeders do not consider buffalo farming as the main business that is used as savings. The relatedness motivation of buffalo farmers was in the high category, that means the farmer working orientation is to relate or interact with the community. In other words, the buffalo farmers followed their neighbors who are the farmers before. It can create more accessible communication when the community has a similar profession. The growth motivation of buffalo farmers was in the medium category. The buffalo farmers business was not oriented to profit, but the savings. Furthermore, the human resources of farmers involved in buffalo maintenance were in a low category. The majority have elementary school education (SD) (71.23%) and some did not even finsih their study (4.72%). This situation causes many innovations and programs introduced by the Pemalang Regency Agriculture Service to be less successful [7].

3.2. Farmers' perception
Perception is a process of individual treatment, giving responses, meanings, images, or interpretations of what is seen, heard, or felt by the senses in the form of attitudes, opinions, and behavior, or referred to as individual behavior. The Buffalo farmer perceptions were shown in Table 4.

Table 4 showed that the buffalo farmers perceptions in Pemalang Regency generally were in the high category. The perception of conformity was in the high category because buffalo farming was suitable for the environment and community culture. Based on the results, all buffalo farmers lived as farmers who used their buffalo to plow rice fields or rented to their neighbors. Furthermore, there are culinary made from buffalo meat, namely "Soto grombyang" and "loso". However, currently, both of these cuisines used beef because buffalo meat was not always available. The perception of benefit was in the high category. The buffalo farmers integrated rice and corn farming with buffalo farming. The farmers utilized agricultural waste as feed, such as rice straw and cornstalk. According to Haryanto [8], buffaloes have the ability to digest feed with high crude fiber such as agricultural waste, in addition, buffalo had higher consumption than cattle that was 13%.

Table 4. Buffalo farmers perception of conformity, benefit, and expectation

Variables		Low	Medium	High
Perception of Conformity	Count	4	15	193
	%	1.89	7.07	91.04
Perception of Benefit	Count	2	35	175
	%	0.94	16.51	82.55
Perception of Expectation	Count	21	66	125
	%	9.91	31.13	58.96

The perception of expectation was in the high category, it means that the farmers had expectations on their buffalo farm. Although currently, buffalo are only used as savings or to fill spare time. The buffalo are still cultivated by breeders with a productive age (> 60 years) of as much as 13.68%. According to BPS Pemalang [1], age categorization based on productivity level is divided into unproductive age (0-14 years), productive age (15-64 years), and post-productive age (more than 64 years). Age was related to physical performance and responsibility [9]. Increasing age can lower physical performance, but it can increase experience which affected responsibility.

Buffalo farmers thought that investment in buffalo farming can increase their income and also can be savings although it was not oriented as the main business. It is proven by the farmers that did not have a farming program or business plan. Farmers sell buffalo when they need big funds, for instance, to build a house and marry their son, but the farmer still leaves money to buy buffalo calves (Gudel) to keep the buffalo cattle business running. If there was no urgent need, the buffalo farmers sell their buffaloes to middlemen who would sell the buffalo in the market. According to the Head of Animal Husbandry of the Pemalang Regency Animal Husbandry Service (personal communication, June 2022), it has been quite a while since the Slaughterhouse in the Pemalang Regency since there has been no buffalo slaughter.

Farmers perceptions were influenced by farming culture, attitudes, beliefs, courage to risk, level of knowledge, rationality, cooperation, and role in groups [10]. The formal buffalo farmer groups in Pemalang Regency had a high category of group dynamics [11]. In addition to the characteristics of innovation, external factors that also affected farmers perceptions were the intensity of counseling or socialization related to new things or innovations that are given to the target. External attribution theory explained that conditions outside the individual could affect the individual in behaving, it can be interpreted that the individual will behave not because of his desires, but because of pressure or uncontrollable circumstances [12].

3.3. Farmers' commitment

Commitment is a fundamental attitude that controls personal behavior by the agreement at the beginning. Hierarchically, the commitment is in line with performance. The results of work depend on the process, the work treatment, and the work attitude. The commitment' fundamental issue is personality, and because of that, it can be difficult to change it [2]. The farmers commitment to raising their buffalo was shown in
Table 5.

Table 5. Buffalo farmers' commitment to raising buffalo in Pemalang Regency

Variables		Low	Medium	High
Commitment	Count	1	87	124
	%	0.5	41.04	58.49

The result showed that 58.49% of buffalo farmers in Pemalang Regency had a high commitment category to continue their business. It is because of their familiarity with the business. Based on this study, as many as 47.17% of the farmers started this business because they acquired the buffalo by inheritance from their parents. There is a belief among buffalo farmers that the buffalo acquired by inheritance from the parents did not permit to be sold and must be cared for by the farmers. In addition, there were 35.85% of the farmers start the business by purchasing buffalo with their farming profit.

There were 3 forms of organizational commitment mentioned by Asbari [13], affective, continuance, and normative commitment. In this study, the affective commitment was the emotional connection of farmers, identification, and involvement of farmers in the buffalo farm business. Members with high affective commitment will continue to raise buffaloes of their own volition. The majority of the buffalo farmers had grouped in formal or informal farmers' groups based on domicile location. The group activity created a support system that caused the members to have a high commitment to the buffalo farm business. The activeness of group members may increase the commitment of farmers in running their businesses because there is interaction, cooperation, and strong group ties [14].

In this study, the continuance commitment was a farmer commitment based on considerations of that must be sacrificed when leaving the buffalo business. Farmers had decided to keep their businesses considering the capability to fulfill the farmers' needs and increased their income. The normative commitment was the farmer belief about the responsibility to raise buffaloes because they feel they have an obligation to continue the buffalo farm business. Commitment is important for business development. The mind can reach success through commitment. It is because discipline, hard work, responsibility, courage, and positive thinking are other parts of achieving goals and these are components of commitment, and successful people always maintain the values of commitment [15]. It is important to maintain the business commitment as mentioned by Tania [2] that is necessary to provide stimulus, both in the form of financial and non-financial. The Pemalang Regency Government has taken various strategies to generate morale that may strengthen the work commitment of farmers, including providing incentives in the form of livestock insurance, artificial insemination programs, and many assistances aimed at maintaining the commitment of farmers.

3.4. Correlation between buffalo farmer motivation and perception of commitment
The correlation between buffalo farmer motivation and perception of the commitment to raising their buffalo as shown in
Table 6.

Table 6. The correlation between buffalo farmers motivation and perception of commitment

Correlation	ρ	Conclusion
Motivation with Commitment	0.590	Strong correlation
Perception with Commitment	0.531	Strong correlation

The results showed that there was a strong correlation between farmers motivation with a commitment to continuing the buffalo farm business. The results of this study were in line with the findings of Gondokusumo and Sutanto [16] that work motivation with positive and significant effect on the organizational commitment of employees. The comprehensive stimulus and motivation needed to maintain the farmer's commitment in purpose to persuade the farmers to continue their business. Motivation can be in the form of moral support through the organization values. As an example, the

organization should entrust a position based on objective considerations and that is not tendentious, non-discriminatory, and open to every member.

There was a strong correlation between perception and the commitment of farmers to continue the buffalo farm business. Farmers had a good perception of their business and it increased their confidence to continue their business. The results of this study were in line with the statement of Sudiyono et al [17] regarding the perception of organizations with lecturer commitment, that the perception of organizational support felt by individuals was related to lecturer commitment and performance. Therefore, perceived organizational/group support positively affects lecturer engagement, and lecturer involvement in turn shows a positive effect on lecturer commitment and performance.

The good perception of farmers needed to be maintained by increasing the farmers motivation so that they could maintain the good commitment that farmers have. The efforts to increase motivation have been done by the Department of Agriculture of Pemalang Regency by holding the "Sekolah Peternakan Rakyat (SPR)". Through group learning, accompanied by competent and experienced mentors, it is expected that it may increase the motivation of buffalo farmers to change their behavior, adopt the intensive farming system, run their buffalo farm as their main business, and try to adopt science and technology to increase production in business productivity.

4. Conclusion
The buffalo farmers in Pemalang Regency have a medium category of motivation and a high category of perception in running their buffalo farm business. The Buffalo farmers in Pemalang Regency have a high category of commitment to continue their buffalo farm business. There is a strong correlation between buffalo farmer motivation and perception of the commitment to raising their buffalo in the Pemalang Regency.

References
[1]   BPS Pemalang 2022 *Pemalang Regency in Figures 2022* (Pemalang)
[2]   Tania A 2013 Pengaruh motivasi kerja dan kepuasan kerja terhadap komitmen organisasional karyawan PT. Dai Knife di Surabaya *Agora* **1** 1702–10
[3]   Rusdiana M, Karnati N and Abdullah T 2021 The Effect of Procedural Justice, Trust and Organization Comitment on Organization Behavier Citizenship of Private Senior High School Teacher in Bekasi District *PalArch's J. Archaeol. Egypt/Egyptology* **18** 3471–83
[4]   Sugiyono 2014 *Metode penelitian pendidikan: (pendekatan kuantitatif, kualitatif dan R & D)* (Bandung: Alfabeta)
[5]   Indahingwati A, Launtu A, Tamsah H, Firman A, Putra A H P K and Aswari A 2019 How Digital Technology Driven Millenial Consumer Behaviour In Indonesia *J. Distrib. Sci.* **17** 25-34
[6]   Panggalih B and Zulaicha R 2012 Pengaruh Kepuasan Kerja terhadap Organization Citizenship Behavior dengan Motivasi Kerja sebagai Variabel Intervening pada Karyawan PT Telkom Tegal *Performance* **16** 1–15
[7]   Muatip K, Widiyanti R, Wakhidati Y N, Safitri L, Purwaningsih H, Djatmiko O E, Einstein A, Mastuti S, Hidayat N N, Sugiarto M and Setianto N A 2022 Buffalo Farmers' Abilities in Accessing Information and Financial Supports in Pemalang Regency *Proc. Int. Conf. Improv. Trop. Anim. Prod. Food Secur. (ITAPS 2021)* **20** 438–44
[8]   Haryanto B 2012 Perkembangan penelitian nutrisi ruminansia *Wartazoa* **22** 169–77
[9]   Pratama A 2019 Pengaruh Komitmen Organisasi dan Kompensasi Terhadap Kepuasan Kerja serta Dampaknya Terhadap Kinerja Karyawan *J. SeMaRaK* **1** 122–41
[10]   Suharyanto N 2017 Faktor-faktor yang mempengaruhi persepsi petani terhadap kebijakan perlindungan lahan pertanian pangan berkelanjutan di Provinsi Bali *J. Pengkaj. dan Pengemb.*

Teknol. Pertan. **20** 111–24

[11] Suryani J A, Muatip K, Widiyanti R and Setianto N A 2022 Pengaruh Dinamika Kelompok Terhadap Pemberdayaan Kelompok Formal dan Tidak Formal Pada Peternak Kerbau di Kabupaten Pemalang *Prosiding Seminar Nasional Teknologi Agribisnis Peternakan (STAP), 9* pp 444–50

[12] Robbins S P and Judge T A 2015 Perilaku Organisasi (Edisi 16)(Salemba Empat, Ed) *Jakarta Pearson Educ. Inc*

[13] Asbari M 2019 Pengaruh kepemimpinan transformasional dan iklim organisasi terhadap kinerja dosen. JOCE IP, **13** 172–186

[14] Muatip K, Purwaningsih H, Setianto N A, Sugiarto M, Widiyanti R, Safitri L and Istiqomah W 2019 Organizational Commitment of Members of the Dairy Farmer Group in Banyumas Regency *IOP Conf. Ser. Earth Environ. Sci.* **372** 12004

[15] Green O H 2012 *The Emotions: A Philosophical Theory* (Springer Netherlands)

[16] Gondokusumo S and Sutanto E M 2015 Motivasi kerja, kepuasan kerja, dan komitmen organisasional karyawan *J. Manaj. Kewirausahaan* **17** 186–96

[17] Sudiyono R N, Goestjahjanti F S, Asbari M, Agistiawati E, Fayzhall M, Yani A, Winanti W, Yuwono T, Nurasiah N and Yulia Y 2020 Meningkatkan Komitmen dan Kinerja Dosen: Apa Peran Manajemen Perguruan Tinggi? *EduPsyCouns J. Educ. Psychol. Couns.* **2** 337–52

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