

## The Role of Organizational Innovation Mediates Explicit Relationship Sharing, Knowledge Sharing and Tacit Knowledge Sharing with Organizational Performance

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**Abstract:** Financial institutions have an important role to promote the economy of a country. LPD is local microfinances in Bali regions and is one of the microfinance institutions established based on customary ties in Bali. This study aims to examine the effect of explicit knowledge sharing, explicit knowledge sharing and innovation on LPD performance in Bali. The population of this study based on LPD microfinance institution which is healthy in 9 districts/cities in Bali Region, Indonesia. The sampling design based on Roscoe concept (1975) where the number of samples are determined at least 10 times the number of variables in the research model. In this study reserach, we used sample 25 times the number of variables, so that, the number of samples of this study is totally 100 respondents. The sampling technique was conducted based on proportional random sampling. The research objectives will be analyzed using SEM PLS 2.0. The result of the research shown that explicit knowledge sharing and tacit knowledge have significant positive effect on organizational innovations, innovation has significant effect on organizational performance while explicit knowledge sharing and tacit knowledge sharing have no significant effect on organizational performance and organizational innovation acts as a mediator of explicit knowledge sharing and tacit knowledge sharing on organizational performance.

**Key words:** Explicit knowledge sharing, tacit knowledge sharing, innovation and performance of LPD as microfinance institutions in Bali, economy, positive effect, random sampling

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### INTRODUCTION

Financial institutions have an important role to promote the economy of a country (Rashmi, 2016). Therefore, the performance of financial institutions must always be maintained in a healthy position (Rai and Supinit, 2016). One financial institution that specifically helps small and medium enterprises is a microfinance institution. According to Hartungi, microfinance contributes greatly to the economies of developing countries. Microfinance has an important role for the growth of rural entrepreneurs (Ele *et al.*, 2016; Awuah and Addaney, 2016; Chetama *et al.*, 2016), providing financial services for small and medium enterprises (Kaur, 2016), microfinance can improve the living standards of rural communities (Abdulmalik and Bambane, 2016; Mahmood *et al.*, 2016), reduce poverty (Wanjiku and Njiru, 2016; Abdulmalik and Bambane, 2016), increasing women's empowerment (Njogu, 2016; Kapila *et al.*, 2016). Based on a number of opinions, it can be concluded that microfinance has an important role for the community.

One of the non-bank microfinance institutions in Bali is local credit unions called LPD as the village

lending institutions and as a financial institution based on indigenous ties in Bali play a role in promoting the economic development of rural communities in accordance with local regulations. The existence of LPDs can create economic independence of communities in certain areas, so, it is important to maintain the sustainability of the performance of microfinance institutions.

A dynamic and competitive environment demands organizations to innovate to improve their performance. Innovation is able to create superior creativity, productivity and performance (Gunday *et al.*, 2011). This is in line with the results of the study Uslu *et al.* (2015) that innovation is important to be implemented in various types of organizations in order to improve organizational performance. However, the result of the study by Simpson *et al.* (2006) suggests that innovation as a risky and costly process has a negative effect on company performance. Similarly, Damanpour *et al.* (2009) found that innovative services and processes have an adverse impact on the company.

Some research reports indicate that microfinance has limited human resources (Arsyad, 2006; Ikeanyibe, 2009). Limitations of human resources on LPD's can be

anticipated through increased interaction of knowledge among fellow organizational members (Lin, 2007). The Knowledge Based View approach (KBV) states that knowledge has an important position for increasing the competence of human resources within the organization (Grant, 1996; Nonaka and Takeuchi, 1995). One of the organizational resources that can improve performance in a dynamic environment is knowledge (Wang and Noe, 2010).

The intended knowledge consists of explicit knowledge sharing and tacit knowledge sharing (Wang and Wang 2012). Zohoori *et al.* (2013), in his research on electronic companies in Iran states that knowledge sharing is explicit and tacit knowledge sharing has a significant influence on innovation. Knowledge sharing is the process of sharing tacit and explicit knowledge sharing which is the strength and key to successful innovation in an organization (Husseini *et al.*, 2015). In addition to showing its influence on innovation explicit knowledge sharing and tacit knowledge sharing also affect the performance of the organization, this is in accordance with the research report by Kim. However, unlike the different results of Darroch (2005)'s shows the result that knowledge sharing has no effect on innovation and organizational performance. Similarly, the research report by Liao *et al.* (2007) shown that knowledge sharing does not affect the ability of innovation. Based on the inconsistency of the research results, than conducted research on the influence of explicit knowledge sharing and tacit knowledge sharing on organizational performance mediated by innovation.

#### **Literature review**

**Organizational performance:** Performance is a result of the behavior of organizational members (Gibson, 1988). The desired result of the organization from the behavior of the people in it is called the performance of the organization. The organization's performance as a concept undergoes various measurable developments and definitions. According to Gavrea *et al.* (2012) there is no universally accepted organization performance definition. Organizational performance is the success of the personnel, team or organization in realizing a predetermined strategic goal with the expected behavior. Performance by Daft (2010) is the ability to achieve organizational tasks by using resources effectively and efficiently. The intended resources include human resources, capabilities, organizational processes, company attributes, information and knowledge controlled by the company. Recent years for traditional performance measurement systems that are financial perspective, combined with non-financial perspective

performance, so as to reflect overall and comprehensive corporate performance (Fahmi, 2011). It also supports the opinion of Halim *et al.* (2009) that the financial performance if supported by non-financial aspects will be more representatives shows the performance of the company. The final goal will be realized of course not only supported by financial and non-financial variables such as processes in achieving company goals.

**Explicit knowledge:** According to KBV required not only superior resources and capabilities but also tacit knowledge sharing and explicit knowledge sharing to integrate, coordinate resources and capabilities possessed by the organization (Grant, 1996). The Knowledge Based View approach (KBV) suggests that organizational knowledge has important important positions as a major source of organizational competence (Grant, 1996; Nonaka and Takeuchi, 1995). Explicit knowledge sharing is a form of knowledge that has been manifested in the form of documentation so easily stored, reproduced, disseminated and studied with understanding and absorption. Examples of explicit knowledge sharing are books, reports, documents, letters, electronic files, data bases, audio visual and in the form of knowledge that is easy to transfer. Explicit knowledge sharing is the sharing of knowledge in the form of practices and written procedures applied by individuals within the organization. According to Zohoori *et al.* (2013), explicit knowledge sharing has a significant influence on the speed of innovation. In addition to influencing innovation, explicit knowledge sharing has a significant effect on organizational performance:

- H<sub>1</sub>: explicit knowledge sharing has a significant positive effect on organizational innovation
- H<sub>2</sub>: explicit knowledge sharing has a significant positive effect on organizational performance

**Tacit knowledge sharing:** Tacit knowledge sharing is the sharing of knowledge embodied in the form of experience and skills of colleagues or superiors According to Ipe (2003), tacit knowledge sharing is something that is known and experienced but difficult to express clearly and completely and very difficult to transfer to others because it is stored in the mind. Examples of tacit knowledge sharing are ideas, perceptions, ways of thinking, insight, expertise, experience and so on. Deyong *et al.* examines the effect of tacit knowledge sharing which is one component of knowledge sharing on the ability of innovation. The results showed that the ability of innovation depends on the level of tacit knowledge sharing development in the organization. Research

Alwis and Hartman who examines the influence of tacit knowledge sharing which is one component of knowledge sharing, to the ability of innovation. The results showed that the ability of innovation depends on the level of tacit knowledge sharing development in the organization. Organizations must know the internal factors that become components of tacit knowledge sharing. Tacit knowledge sharing is a process of knowledge sharing through the experience and skills of organization members. Tacit knowledge sharing has a more significant effect on the quality of innovation and operational performance of Wang and Wang (2012):

- H<sub>3</sub>: tacit knowledge sharing has a significant positive effect on organizational innovation
- H<sub>4</sub>: tacit knowledge sharing has a significant positive effect on organizational innovation

**Organizational innovation:** Schumpeter (1934) was one of the first economists to define innovation. There are five types of innovation: new product introduction or qualitative change of existing product, process innovation new to an industry, opening of a new market, development of new sources of supply of raw materials or other inputs, changes in industrial organization (changes in industrial organization).

Companies are required to be able to create new thinking, new ideas and offer innovative products as well as improved service that satisfies customers. According to Crossan and Apaydin (2010), innovation is the production or adoption, assimilation and exploitation that add value, renewal and expansion of products, services and the establishment of new systems. Research Hilmi *et al.* (2011) uses innovation measurements in two, namely product innovation and process innovation. The term innovation is defined as a breakthrough associated with new products. Jimenez-Jimenez and Sanz-Valle (2011) defines innovation as a broader concept that addresses product implementation, process innovation and managerial innovation. The results of Slavkovic and Babic (2013) show that there is a positive and significant influence on process innovation and administrative innovation on organizational performance in merchandising and service companies in Serbia. Iscan *et al.* (2014) which conducted a study of 135 SMEs in Turkey, found that there was a significant positive effect on innovation on performance. Based on the results of previous research, it can be formulated hypothesis as follows:

- H<sub>5</sub>: organizational innovation has a significant positive effect on organizational innovation

**Explicit knowledge sharing, tacit knowledge sharing, innovation and organizational performance:** Based on

the concept of Baron and Kenny (1986), if explicit and tacit knowledge sharing influences organizational innovation, and organizational innovation also affects organizational performance, it can be assumed that organizational innovation is a mediating variable. A number of previous studies have found explicit knowledge sharing to have a significant effect on organizational innovation (Zohoori *et al.*, 2013; Wang and Wang, 2012; Yu *et al.*, 2013). Similarly, tacit knowledge sharing was found to have a significant effect on organizational innovation (Alwis and Hartman, Wang and Wang, 2012). Meanwhile the effect of innovation on organizational performance is the topic research developed by Slavkovic and Babic (2013), Iscan *et al.* (2014). Based on those research reports can be formulated as hypothesis:

- H<sub>6</sub>: organizational innovation acts as a mediator of explicit knowledge sharing relationships with organizational performance
- H<sub>7</sub>: organizational innovation acts as a mediator of tacit knowledge sharing with organizational performance

## MATERIALS AND METHODS

The population object in this research were 956 LPD microfinance managers that located in 9 districts /cities in Bali Region, Indonesia. Determination of the sample is based on by Roscoe (1982) concept where the number of samples is determined at least 10 times the number of variables that formulated in the research model. In this research, the sample is design 25 times the number of variables, so that, total the number of samples of this study is 100 respondents. The research was conducted based on proportional random sampling. The analytical technique was support by SEM PLS 2.0 Software. Testing procedure is organized using outer-model model and applied regression inner-model and the stages of mediation indirect testing procedure. However, the mediation procedure test in this research model is done by comparing indirect effect to total indirect effect called Variance Affected For (VAF). A variable can be said to be fully mediated if it has a value >0.80. If the VAF value between 0.20-0.80 is expressed as partial mediation, whereas if <0.20 is said to be not as a mediator.

In this research, indicators explicit knowledge and tacit knowledge sharing refers to Wang and Wang (2012). Explicit knowledge has 5 indicators, namely: sharing of knowledge through documents, preparing reports documents regularly, following training programs following development programs and utilizing information technology. Tacit knowledge sharing has 5 indicators, namely: sharing knowledge from experience, sharing knowledge based on expertise, sharing knowledge

with various parties, making failure as experience. Organizational innovation refers to Lin (2007) which has 4 indicators that are: implementing new ideas, creative operational system, leading in service system, leading in product marketing. Organizational performance refers to Slavcovic and Babic (2013) has 6 indicators: cost reduction, employee productivity, service quality, responsiveness to technological change, increase in profitability and reputation the good one. All indicators are measured using Likert scale with scale 7 (1 = very strongly disagree up to 7 = very strongly agree)

**RESULTS AND DISCUSSION**

**Testing validity, reliability and fit model:** Based on data analysis through SmartPLS 2.0 program obtained the results of outer loading and AVE coefficient ranged from 0.6704 up to 0.8757 which means that all indicators are valid because above 0.50 and Average Variance Extracted (AVE) coefficient also has fulfilled the validity requirement of  $AVE > 0.50$  shown in Table 1.

Table 1: R<sup>2</sup> Cronbach alpha composite reliability and AVE

Variables	R <sup>2</sup>	Cronbach's alpha	Composite reliability	AVE
Explicit knowledge sharing	-	0.818	0.873	0.582
Tacit knowledge sharing	-	0.745	0.840	0.569
Organizational innovation	0.591	0.799	0.869	0.624
Organizational performance	0.594	0.855	0.892	0.581

Based on the criteria of validity and reliability testing procedure, than the results of the analysis indicate as.

Based on the calculation of Q<sup>2</sup> predictive relevance (Q<sup>2</sup>) with the formula  $Q^2 = 1 - (R^2_{Y1}) - (R^2_{Y2})$  shows the value of 0.8339 means that 83.39% variable organizational performance can be explained by explicit knowledge sharing, tacit knowledge sharing and organizational innovation while 16.61% is another factor outside the research model. According to Chin (1998), that the value of Q<sup>2</sup> approaching 1 indicates that the model has good predictive relevance.

The level of appropriateness (fit) of the research model used the criteria of Goodness of Fit (GoF) =  $\sqrt{AVE \times R^2}$ , the result is 0.591 according to Akter *et al.* (2011), values above 0.581 are classified as large GoF. This means that the research model has a high degree of model accuracy. The GoF calculation results show a value of 0.581, based on GoF criteria according to Akter *et al.* (2011), the value of 0.581 belongs to a large GoF. This means that the research model has a high degree of model accuracy.

**Hypothesis testing**

**Testing direct influence:** The result of hypothesis test is shown in Fig. 1 and Table 2 shows the coefficient path. Based on Fig. 1 and Table 2, it can be explained that there is a significant positive effect of explicit knowledge sharing and tacit knowledge sharing on organizational

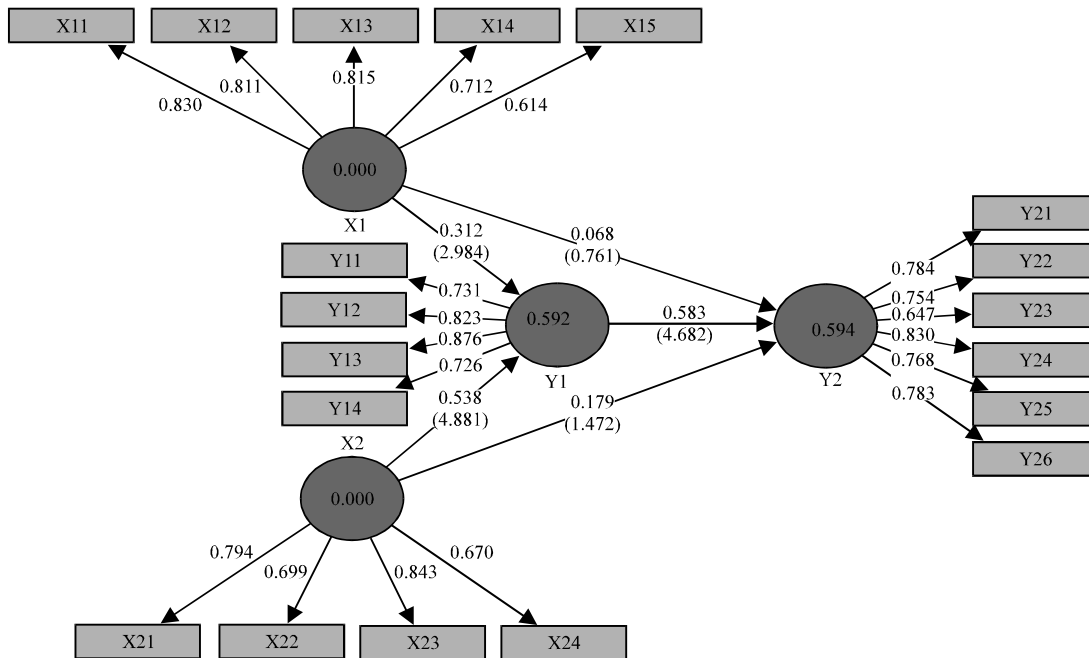


Fig. 1: Innovation as a moderator of explicit knowledge sharing relationships, tacit knowledge sharing with organizational performance

Table 2: Path coefficient explicit knowledge sharing, tacit knowledge sharing, organizational innovation and organizational performance

Relationship variables	Path Coefficient	t-statistics	Information
Explicit knowledge sharing-Organizational innovation (H <sub>1</sub> )	0.3118	2.9842	Support
Explicit knowledge sharing-Organizational performance (H <sub>2</sub> )	0.0675	0.7614	Rejected
Tacit knowledge sharing-Organizational innovation (H <sub>3</sub> )	0.5378	4.8810	Be accepted
Tacit knowledge sharing-Organizational performance (H <sub>4</sub> )	0.1784	1.4724	Rejected
Organizational innovation-Organizational performance (H <sub>5</sub> )	0.5825	4.6824	Be accepted

innovation. This shows that the more intensity of explicit knowledge sharing and tacit knowledge sharing can improve organizational innovation. Similarly, organizational innovation has a significant positive effect on organizational performance. While explicit knowledge sharing and tacit knowledge sharing have no significant effect on LPD performance in Bali. This shows that the intensity of explicit knowledge sharing and tacit knowledge sharing does not contribute to the improvement of employee performance.

**Indirect effect testing:** The test of mediation effect is done by comparing indirect effect to total indirect effect which is formulated as follows:

$$VAF = \frac{\text{Indirect effect}}{\text{Total indirect effect}}$$

The calculation of the role of organizational innovation mediation (Y1) on the influence of explicit knowledge sharing (X1) on organizational performance (Y2) based on VAF formula is as follows:

$$VAF_{(X1 \rightarrow Y1 \rightarrow Y2)} = \frac{0.3118 \times 0.5825}{0.0675 + (0.3118 \times 0.5825)}$$

$$VAF_{(X1 \rightarrow Y1 \rightarrow Y2)} = 0.729$$

Based on the calculation where the VAF of 0.729, then according to the criteria Hair *et al.* (2013) where if the VAF values are between 0.20-0.80 included as partial mediation. This implies that organizational innovation acts as a partial mediator.

The calculation of the role of organizational innovation mediation (Y1) on the influence of tacit knowledge sharing (X2) on organizational performance (Y2) based on VAF formula is as follows:

$$VAF_{(X2 \rightarrow Y1 \rightarrow Y2)} = \frac{0.5378 \times 0.5825}{0.1784 + (0.5378 \times 0.5825)}$$

$$VAF_{(X2 \rightarrow Y1 \rightarrow Y2)} = 0.491$$

Based on the calculation where the VAF of 0.491, then according to the criteria Hair *et al.* (2013) where if the

VAF values are between 0.20-0.80 included as partial mediation. This implies that organizational innovation acts as a partial mediator.

## CONCLUSION

Based on the results of research can be argued that explicit and tacit knowledge sharing have a significant positive effect on organizational innovation. Similarly, innovation shows a significant positive effect on organizational performance. However, explicit and tacit knowledge sharing have no significant effect on organizational performance. VAF calculation results show that organizational innovation acts as a partial mediator, both in explicit knowledge sharing relationships on organizational performance as well as on tacit knowledge sharing relationship to organizational performance. This indicates that the intensity of explicit knowledge sharing and tacit knowledge sharing can increase the organizational resources and improve organizational performance if followed by the creativity of new methods to implement products and services appropriate to the needs of the village community. Although, LPD is a microfinance established based on indigenous ties in Bali, it is important to make innovations in order to cope with an increasingly dynamic business environment and full of other financial institution products.

This study only reflects the results on microfinance, especially, in LPD in Bali, so, it can not be generated for other financial institutions. For that reason, it is necessary to conduct more constrained research involving more variable variables and broader research areas.

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