

CULTURE-BASED RISK MANAGEMENT (EXPERIMENTAL STUDY ON SAVING AND LOAN COOPERATIVE IN BADUNG REGENCY)

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Abstract. This research aims to provide an overview of the application of risk management based on local cultural values conducted by Saving and Loan Cooperative (SLC) in Badung Regency as the main component in the implementation of good corporate governance by optimising the local cultural values such as Tri Hita Karana and Catur Purusha Artha. By putting forward the local cultural values, the Saving and Loan Cooperative (SLC) is expected to grow and flourish with the internalisation of strong cultural values leading to good and appropriate corporate governance. This research is conducted by an experimental study using questionnaire as the media. The research sample is the Saving and Loan Cooperative's employees in Badung Regency. The results confirm our hypothesis with a total of 56 respondents. The total number of respondents are 56 (fifty-six) people. The test results show that Tri Hita Karana and Catur Purusha Artha individually strengthen the risk management of Saving and Loans Cooperative.

Keywords: Risk Management, Saving and Loan Cooperative, Tri Hita Karana, Catur Purusha Artha

I. INTRODUCTION

Risk control such as credit risk analysis is one of the important dimensions in assessing the health of a microfinance institution including the Saving and Loan Cooperative (SLC). An organisation such as Saving and Loan Cooperative (SLC) in Bali in general and particularly in Badung Regency is integrating a specific society culture and a unique management through the values of communication, and it has clearly displayed the information building and cultural activities containing the elements of belief and karma. Spiritual and cultural traditions benefit the microfinance industry because these traditions are in direct contact with customers (Ahtsa and Hannan, 2014).

The study conducted by Suartana (2015) on the implementation of local culture in Village Financial Institution (locally abbreviated as LPD) showed that the LPD's managers who internalise Tri Hita Karana and Catur Purusha Artha values have lower business risk compared to those without the two cultural values. Although this research is not a manipulated technique within the context of pure causality, however, if the LPD's managers read and live the

values of Tri Hita Karana and Catur Purusha Artha, there will be what we call organisational strengthening in running the LPD. This result is in line with the study of Thomson et al's (1990) on the risk theory indicating that individuals are expecting risk perceptions and reinforce their commitment that comes from their outward-looking culture as a way of life. In this respect, SLC has management values as a symbolic management articulated in local language i.e. *paruman*, *sangkep* (both terms means customary deliberative meeting), the use of the Balinese language in the meetings and *segilik seguluk* (friendly gesture reflecting the spirit of mutual cooperation) in a harmonious life.

In particular, this study aims at creating a model of risk management based on the cultural values of Tri Hita Karana and Catur Purusha Artha by applying the method of manipulation (treatment) with field experiments. Various forms of risk are facing SLC including liquidity, credit and operational risks and other forms of risk that are worth analysed, thus provide an overview of risk management practices reinforced by local organisation and culture towards a sustainable and healthy SLC.

Referring to the abovementioned background problems, the main issues are as follows:

- 1) Are SLC's employees who implement cultural values of Catur Purusha Artha able to better manage SLC risks compared to SLC's employees who do not implement Catur Purusha Artha?
- 2) Are SLC's employees who implement cultural values of Tri Hita Karana able to better manage SLC risks compared to SLC's employees who do not implement Tri Hita Karana?
- 3) Are SLC's employees who implement cultural values of Catur Purusha Artha and Tri Hita Karana able to better manage SLC risks compared to SLC's employees who do not implement the values of both?

II. RESEARCH METHOD

Research is an experimental study conducted to gain an understanding of the nature of a particular relationship or determine the differences between groups or the independence of two or more factors.

Experiment has 2x2 Between Subjects Factorial Design, with the independent variables: the cooperative's employees without the implementation of Catur Purusha Artha and Tri Hita Karana and the cooperative's employees with the implementation of Purusha Artha and Tri Hita Karana, and the dependent variable is the risk assessment of Saving and Loan Cooperative itself. The combination of between-subjects experimental treatments will result in 4 groups of subjects as presented in Table 1.

Table 1
Experimental 2x2 Between Subject Factorial Design

	SLC without Catur Purusha Artha Implementation	SLC with Catur Purusha Artha Implementation
SLC without Tri Hita Karana Implementation	A	B
SLC with Tri Hita Karana Implementation	C	D

The experimental subjects of this research are the employees of Saving and Loan Cooperative scattered across Badung Regency, who certainly face any potential risks in their working environment. The independent variables used in the research are categorical (1) Condition without dynamic customary law (Pararem), (2) Implementation of Pararem with Tri Hita Karana, (3) Implementation of Pararem with Chatur Purusha Artha, and (4) combination of both. The dependent variable is the continuous variable i.e. risk assessment of Saving and Loan Cooperative. Data analysis methods used in this research are ANOVA and t-test against the independent sample.

III. RESULTS AND ANALYSIS

3.1. Result

The samples obtained by the researchers were 56 subjects, ie 13 subjects in treatment group A, 17 subjects in group B, 13 subjects in group C, and 13 subjects in group

D. Subjects among others were employees of Kuta Mimba Cooperative which is a Saving and Loan Cooperative, Subhakti Ungasan Cooperative, Giri Mitra Pecatu Cooperative, Guna Prima Dana Cooperative, and Sari Sedana Mandiri Pecatu Cooperative which is also a Saving and Loan Cooperative.

Table 2
Summary of Subject Demographics

DESCRIPTION/ CHARACTERISTICS	TOTAL	PERCENTAGE (%)
Sex		
Male	27	48.21
Female	29	51.79
Total	56	100.00
Educational Level		
Senior High/equivalent	43	76.79
Diploma 1 - 4	4	7.14
Bachelor	9	16.07
Master	0	0.00
Total	56	100.00
Work Experience		
Unknown	13	
≤ 5 yo	14	25.00
6 - 10 yo	11	19.64
11 - 15 yo	16	28.57
16 - 20 yo	2	3.57
> 20 yo	0	0.00
Total	56	76.79
Number of Training Participated		
Never before	4	7.14
Unknown	28	50.00
≤ 5 times	5	8.93
6 - 10 times	7	12.50
11 - 15 times	1	1.79
16 - 20 times	2	3.57
> 20 times	9	16.07
Total	56	100.00
Age		
21-25 yo	8	14.29
26-30 yo	7	12.50
31-35 yo	14	25.00
36-40 yo	7	12.50
> 40 yo	20	35.71
Total	56	100.00

Source: Data processed by researcher, 2016

Table 2 informs that the subject consists of 27 (48.21%) male respondents and 29 (51.79%) female respondents. As regard the educational level of the respondents, as many as 43 people (76.79%) completed senior high school or equivalent, as many as 4 respondents (7.14%) are included in Diploma 1 - 4 level, as many as 9 people (16.07%) are Bachelor graduated, and none of the respondents holds Master degree at the time being.

It is also mentioned in Table 4.1 the number of respondents based on the number of training having been participated by the respondents. Respondents having less than 5 years work experience are 14 people (25%), from 6 to 10 years of work experience make up 11 people (19,64%), work experience from 11 to 15 years as many as 16 people (28,57%), 16 to 20 years of work experience reach 2 people (3,57%), and the rest as many as 13 people (23,21%) are unknown.

The number of training having been participated by the respondents can be seen in Table 4.1. Similarly, the age range of respondents is dominated by respondents with age over 40 years as many as 20 respondents (35.71%).

Based on the recapitulation of the questionnaire results, the subjects obtained for each treatment group were as follows:

Table 3.
Number of Respondents in Each Group

Treatment Group	Number of Respondents
A	13
B	17
C	13
D	13
Total	56

Source: Data processed by researcher, 2016

The number of respondents or subjects covered by the researchers has met the targeted number of respondents, enabling the statistics testing on the results of the questionnaire used as an experimental research instrument.

Results of Descriptive Statistics

The descriptive statistics provide information on the characteristics of research variables, namely the number of observations, minimum value, maximum value, mean value, and standard deviation. Results of descriptive statistics can be seen in Table 4.

Table 4.
Results of Descriptive Statistics

Variable (Treatment)	N	Min.	Max.	Mean	Std. Deviation
A	13	30	70	59,23	13,82
B	17	50	100	72,94	12,13
C	13	30	90	60,00	19,58
D	11	30	70	44,55	10,38

Source: Data processed by researcher, 2016

The result of homogeneity test on each hypothesis testing group are as follows:

Table 5
Variance Homogeneity Test Results

Remark	Levene Statistic	Sig.
Hypothesis 1	0,045	0,834
Hypothesis 2	3,757	0,064
Hypothesis 3	0,380	0,544

Source: Data processed by researcher, 2016

From Table 4.4 it can be seen that the significance level of each data group is 0.834; 0.064; and 0.544. Since the significance reaches more than 0.05 it can be concluded that the three groups of data of this study have the same variant. The Levene Statistic figures denote the smaller the value the greater the homogeneity.

Result of Hypothesis Testing

The hypothesis was tested using the ANOVA (analysis of variance) method to identify the significance of the mean difference (μ) between the sample groups and one to another.

Table 6
Result of hypothesis testing

Remark	Variance	df	Mean Square	F	Sig.
Hypothesis 1	Between groups	1	1384,751	8,347	0,007
	Within groups	28	165,902		
Hypothesis 2	Between groups	1	3,846	0,013	0,909
	Within groups	24	287,179		
Hypothesis 3	Between groups	1	1284,965	8,401	0,008
	Within groups	22	152,956		

Source: Data processed by researcher, 2015

Hypothesis testing 1

Hypothesis 1 was tested to determine the significant differences between condition without manipulation (A) and condition with the cultural value of Catur Purusa Artha (B). The results of the first hypothesis testing show p-value at 0,007 (<0,05) thus H_1 is accepted. This value indicates that the Saving and Loan Cooperative's employees implementing Catur Purusa Artha can better manage the risks than employees who do not implement the Catur Purusa Artha values.

Hypothesis testing 2

Hypothesis 2 was tested to determine the significant differences between condition without manipulation (A) and condition with the cultural values of Tri Hita Karana (C). The results of the second hypothesis testing got p-value at 0,909. Referring to the result of variance homogeneity test, the variable in the hypothesis has a significance of 0.064 which is more than 0.05, it can thus be concluded this data group has the same variant. This indicates that the Saving and Loan Cooperative's employees implementing the Tri Hita Karana cultural values can manage the cooperative's

risk differently compared to the employees who do not implement Tri Hita Karana in risk management.

Hypothesis testing 3

Hypothesis 3 was tested to determine the significant differences between condition without manipulation (A) and condition with the cultural values of Catur Purusa Artha and Tri Hita Karana (D). The result of the third hypothesis testing indicates p-value at 0,008 ($<0,05$) thus H_3 is accepted. It means that the Saving and Loan Cooperative's employees implementing Catur Purusa Artha and Tri Hita Karana can better manage the risks compared to the employees who do not implement the cultural values of Catur Purusa Artha and Tri Hita Karana.

3.2. Discussion

The manipulation of independent variables was simply done by giving different cultural content on the independent variables to see the impact of the absence or the presence of cultural content of both Purusa Artha and/or Tri Hita Karana on the dependent variable i.e. risk management in Saving and Loan Cooperatives in Badung regency. Results of test done by the researchers on the three proposed hypotheses provide an indication that the local cultural content, namely Catur Purusa Artha and Tri Hita Karana, also contributed to the risk management of Saving and Loan Cooperative.

Research with field experimental methods on employees at different Saving and Loan Cooperatives in Badung Regency leads to the conclusion that the two combined local cultures can strengthen the risk management implemented in Saving and Loan Cooperatives.

IV. CONCLUSION

The research outcomes have confirmed each hypothesis proposed by the researchers. There are 56 respondents who are part of Kuta Mimba Cooperative which is a Saving and Loan Cooperative, Subhakti Ungasan Cooperative, Giri Mitra Pecatu Cooperative, Guna Prima Dana Cooperative, and Sari Sedana Mandiri Pecatu, which is also a Saving and Loan Cooperative. The results of the experimental tests show that the local cultural values of Tri Hita Karana and Catur Purusa Artha individually strengthen the risk management of Saving and Loan Cooperatives. In addition, the testing results denote the combination of the two cultural concepts can strengthen the risk management of the Saving and Loan Cooperatives.

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REFERENCES

- [1] Astawa, I Putu; Made Sudarma, Siti Aisjah dan Djumahir. 2012. Journal of Business and Management. Vol. 6, issue 4 (nop-des), pp 16-20
- [2] Arvind Ashta & Mark Hannam, (2014), "Hinduism and Microcredit", Journal of Management Development, Vol. 33 Iss 8/9 pp. 891 - 904
- [3] Doherty, Neil. 2000. Integrated Risk Management. McGraw Hill, New York
- [4] Johnstone, Karla M. 2000. Client-Acceptance Decisions: Simultaneous Effects of Clients Business Risk, Audit Risk, Audit Business Risk, and Risk Adaptation. Auditing A Journal of Practice & Theory, Vol. 19, No. 1, Spring
- [5] Johnstone, Karla M. dan Jean C. Bedard. 2003. Risk Management in Client Acceptance Decisions. Jurnal The Accounting Review, Volume 78, No.4 pp 1003-1025
- [6] Koroy, Tri Ramaraya. 2008. Management Audit: Enterprise Risk Management. Working Paper
- [7] Kotchetova, Natalia; Thomas M. Kozloski dan William F. Messier, Jr. 2010. Linkages between Auditors Risk Assesments in A Risk-Based Audit. Working Paper, diunduh pada tanggal 2 Mei 2010.
- [8] Miswanto, Bambang. 2016. Manajemen Risiko Pada Koperasi Simpan Pinjam (SLC).
- [9] Pancadana, Dewa Made dan AA Gde Oka Parwata. 2013. Catur Purusha Artha sebagai Dasar Kegiatan Usaha LPD di Desa Pakraman Kikian. Jurnal Kertha Semaya, vol. 01, no.02 Pebruari.
- [10] Peraturan Gubernur Bali No. 16 tahun 2008 tentang Pengurus dan Pengawas Internal Lembaga Perkreditan Desa
- [11] Peraturan Gubernur Bali No. 16 Tahun 2008 tentang Pengurus dan Pengawas Internal Lembaga Perkreditan Desa
- [12] Saputra, Komang Adi Kurniawan. 2013. Analisis Pengaruh Locus of Control terhadap Kinerja dan Kepuasan Kerja Internal Auditor dengan Kultur Lokal Tri Hita Karana sebagai Variabel Moderasi (Penelitian terhadap Internal Auditor Hotel Berbintang di Bali). www.undiksha.ac.id
- [13] Ramos, Michael. 2009. Risk-Based Audit Best Practices. Journal of Accountancy. Desember. p.32
- [14] Suartana, I Wayan (2009). Arsitektur Pengelolaan Risiko pada Lembaga Perkreditan Desa (LPD). Udayana University Press
- [15] Suartana, I Wayan (2015). Pengelolaan Risiko Berkelanjutan Berbasis Budaya pada LPD. Laporan Riset Hibah Bersaing.
- [16] www.aon.fr. Sustainability-Beyond Enterprise Risk Management. Downloaded on 16 May 2013