



UNIVERSITI PUTRA MALAYSIA

***HUMAN CAPITAL, SOCIAL CAPITAL, PARTICIPATION AND
COOPERATIVE PERFORMANCE AMONG COOPERATIVE BOARD
MEMBERS IN PROGRAM DESA LESTARI, MALAYSIA***

MOKHTARUDDIN BIN BUANG

FEM 2022 11



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By

MOKHTARUDDIN BIN BUANG

**Thesis Submitted to the School of Graduate Studies, Universiti Putra
Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of
Philosophy**

November 2021

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in
fulfilment of the requirement for the Degree of Doctor of Philosophy

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PERFORMANCE AMONG COOPERATIVE BOARD MEMBERS IN PROGRAM
DESA LESTARI, MALAYSIA**

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November 2021

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In Malaysia, co-operatives have played a significant role in the government's rural community development agenda. With the introduction of Program Desa Lestari in 2013, the government has strengthened the use of the co-operative platform to improve the rural community's well-being. Nonetheless, the platform's viability as a strategy for this programme is contingent on the effectiveness of the co-operative board members' roles. Hence, the effectiveness of co-operative board members is examined in this thesis via the lens of the resource provision role of the board members' human capital and social capital, which would influence on the co-operative's performance in Program Desa Lestari. Besides, board participation was proposed as a mediating factor of the relationship between human capital and social capital on co-operative performance. Subsequently, the Resource Dependence Theory and Participation Theory were integrated in order to better understand the impact of these factors on the performance of the co-operatives in Program Desa Lestari.

A proportionate stratified sampling procedure was used, and data was obtained from questionnaires sent online and via mail. After the data screening process, 226 responses were received involving 38 co-operatives for analysis. Statistical Package for Social Science (SPSS) and the Partial Least Square Structural Equation Modeling (PLS-SEM) data analysis technique was used to analyse the data. Two types of data analysis were conducted; first, the descriptive analysis to determine the level of all related variables; and second, the inferential analysis using PLS-SEM to examine four hypotheses drawn from the research model.

This research revealed several noteworthy findings; first, it was discovered that the majority of the co-operatives ($f = 21$) performed at an average to very satisfactory level (51% and above), with 9 co-operatives operating under the functions of service. Meanwhile, 17 co-operatives were classified as having unsatisfactory to very unsatisfactory performance, with a score of 50% and below. Overall, the finding showed that co-operative performance in Program Desa Lestari is moderate. Second, this study found that the respondents of this study claimed to have a high level of human capital, social capital, and participation. Third, the PLS-SEM analysis showed that despite the level of human capital and social capital of the respondents were high in this study, these constructs had no relationship on co-operative performance, as evidenced by the effect size (q^2) analysis (human capital = 0.016; social capital = 0.007). Fourth, the bootstrapping analysis indicated that board participation had no effect on the relationship between human and social capital and co-operative performance. Finally, the finding reported that all the variables explained 12.4% of the variance in co-operative performance in the current study.

Although the findings were found not statistically insignificant, the present study's model was predictively accurate, as evidenced by Q^2 values greater than 0. Based on these findings, the proposed theoretical framework serves as a prospective research since it is the first to integrate the Resource Dependence Theory and the Participation Theory in investigating the effectiveness of board members on co-operative performance. Hence, this framework offers empirical and theoretical ground for future research, especially in the context of co-operatives, in order to highlight the viability of this platform as a community development strategy.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

**MODAL INSAN, MODAL SOSIAL, PENYERTAAN DAN PRESTASI
KOPERASI DALAM KALANGAN ANGGOTA LEMBAGA KOPERASI
PROGRAM DESA LESTARI, MALAYSIA**

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Di Malaysia, koperasi telah memainkan peranan penting dalam agenda pembangunan masyarakat luar bandar kerajaan. Dengan pengenalan Program Desa Lestari pada tahun 2013, kerajaan telah memperkasakan penggunaan platform koperasi untuk meningkatkan kesejahteraan masyarakat luar bandar. Namun begitu, daya maju platform ini sebagai strategi untuk program ini adalah bergantung kepada keberkesanan peranan anggota lembaga koperasi. Justeru, keberkesanan anggota lembaga koperasi dikaji dalam tesis ini melalui lensa peranan penyediaan sumber modal insan dan modal sosial anggota lembaga, yang akan mempengaruhi prestasi koperasi dalam Program Desa Lestari. Selain itu, penyertaan lembaga dicadangkan sebagai faktor pengantara hubungan antara modal insan dan modal sosial terhadap prestasi koperasi. Seterusnya, Teori Kebergantungan Sumber dan Teori Penyertaan telah diintegrasikan untuk lebih memahami kesan faktor-faktor ini terhadap prestasi koperasi dalam Program Desa Lestari.

Prosedur pensampelan rawak berstrata telah digunakan, dan data diperoleh daripada soal selidik yang dihantar dalam talian dan melalui mel. Setelah proses penyaringan data, 226 maklum balas telah diterima yang melibatkan 38 koperasi untuk dianalisis. Teknik analisis data *Statistical Package for Social Science* (SPSS) dan *Partial Least Square Structural Equation Modeling* (PLS-SEM) digunakan untuk menganalisis data. Dua jenis data analisis dijalankan: pertama, analisis deskriptif untuk menentukan tahap semua pembolehubah yang berkaitan; dan kedua, analisis inferensi menggunakan PLS-SEM untuk mengkaji empat hipotesis daripada kerangka kajian.

Penyelidikan ini mendedahkan beberapa penemuan penting; pertama, didapati bahawa majoriti koperasi ($f=21$) menunjukkan prestasi pada tahap purata

hingga sangat memuaskan (51% dan ke atas), dengan 9 koperasi beroperasi di bawah fungsi perkhidmatan. Sementara itu, 17 koperasi diklasifikasikan mempunyai prestasi yang tidak memuaskan hingga sangat tidak memuaskan dengan skor 50% ke bawah. Secara keseluruhannya, dapatan kajian menunjukkan prestasi koperasi dalam Program Desa Lestari adalah sederhana. Kedua, kajian ini mendapati bahawa responden kajian ini mendakwa mempunyai tahap modal insan, modal sosial, dan penyertaan yang tinggi. Ketiga, analisis PLS-SEM menunjukkan bahawa walaupun tahap modal insan dan modal sosial responden adalah tinggi dalam kajian ini, konstruk ini tidak mempunyai hubungan ke atas prestasi koperasi, seperti yang dibuktikan oleh analisis saiz kesan (q^2) (modal insan = 0.016; modal sosial = 0.007). Keempat, analisis *bootstrapping* menunjukkan bahawa penyertaan lembaga pengarah tidak mempunyai kesan ke atas hubungan antara modal insan dan sosial dan prestasi koperasi. Akhirnya, dapatan melaporkan bahawa semua pembolehubah menjelaskan 12.4% daripada varians dalam prestasi koperasi dalam kajian semasa.

Walaupun penemuan didapati tidak signifikan secara statistik, model kajian ini adalah tepat secara ramalan, seperti yang dibuktikan oleh nilai Q^2 yang lebih besar daripada 0. Berdasarkan penemuan ini, kerangka teori yang dicadangkan berfungsi sebagai penyelidikan prospektif kerana ia merupakan yang pertama mengintegrasikan Teori Kebergantungan Sumber dan Teori Penyertaan dalam menyiasat keberkesanan anggota lembaga terhadap prestasi koperasi. Oleh itu, rangka kerja ini menawarkan landasan empirikal dan teori untuk penyelidikan masa depan, terutamanya dalam konteks koperasi, bagi menonjolkan daya maju platform ini sebagai strategi pembangunan komuniti.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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TABLE OF CONTENTS

	Page
ABSTRACT	i
ABSTRAK	iii
ACKNOWLEDGEMENTS	v
APPROVAL	vi
DECLARATION	viii
LIST OF TABLES	xiii
LIST OF FIGURES	xvi
LIST OF EQUATIONS	xvii
CHAPTER	
1 INTRODUCTION	1
1.1 An Overview of Rural Community Development Programme in Malaysia	1
1.2 Overview of Rural Co-operative in Malaysia	4
1.3 Co-operative as Strategy for Community Development	6
1.4 Co-operative in Program Desa Lestari	8
1.5 Statement of Problem	9
1.6 Research Questions	13
1.7 Research Objectives	14
1.8 Significance of the Study	14
1.9 Scope and Limitation of the Study	15
1.10 Theoretical Framework	16
1.10.1 Resource Dependence Theory	17
1.10.1.1 Human Capital	18
1.10.1.2 Social Capital	20
1.10.2 Participation Theory	21
1.10.2.1 Participation as a Means or an End	22
1.10.2.2 Dimensions of Participation	23
1.10.2.3 Co-operative as the Vehicle of Participation	23
1.11 Conceptual Framework	24
1.12 Definition of Terminologies	26
1.12.1 Human capital	26
1.12.2 Social capital	27
1.12.3 Participation	27
1.12.4 Co-operative performance	28
1.13 Outline of Thesis	28
2 LITERATURE REVIEW	30
2.1 Introduction	30
2.2 Co-operative Studies in Malaysia	30
2.3 Factors Influencing Co-operative Performance	31

2.4	Co-operative Performance Measurement	38
2.4.1	Financial Indicators	39
2.4.2	Non-Financial Indicators	42
2.5	Human Capital	44
2.6	Social Capital	45
2.7	Mediating Effect of Board Participation	47
2.8	Summary	49
3	METHODOLOGY	51
3.1	Introduction	51
3.2	Research Design	51
3.3	Population and Sampling Design	52
3.3.1	Program Desa Lestari	52
3.3.2	Population	54
3.3.3	Sample Size	55
3.3.4	Sampling Technique	56
3.4	Developing Research Instrument	58
3.4.1	Section A: Respondent's Particulars	59
3.4.2	Section B: Measurement of Human Capital	59
3.4.3	Section C: Measurement of Social Capital	60
3.4.4	Section D: Measurement of Board Participation	60
3.4.5	Section E: Measurement of Dependent Variable	60
3.5	Validity and Reliability	62
3.5.1	Face Validity	62
3.5.2	Content Validity	63
3.5.3	Pilot Test	66
3.5.4	Construct Validity	67
3.5.5	Reliability	73
3.6	Data Collection Procedure	74
3.7	Data Analysis	75
3.7.1	Data Return Rate Analysis	76
3.7.2	Data Screening	76
3.7.2.1	Missing Value	
3.7.2.2	Outliers	
3.7.3	Data Normality	78
3.7.4	Multicollinearity	78
3.7.5	Descriptive Analysis	79
3.7.6	Partial Least Squares Structural Equation Modeling (PLS-SEM)	79
3.7.7	Evaluating Measurement and Structural Models	81
3.7.7.1	Measurement Model Evaluation	81
3.7.7.2	Structural Model Evaluation	88
3.7.8	Mediation Test	90
3.8	Chapter Summary	92

4	RESULTS AND DISCUSSION	93
4.1	Introduction	93
4.2	Respondents' Demographic Profile	93
4.3	Co-operatives' Profile	95
4.4	Level of Co-operative Performance	98
	4.4.1 Financial Indicators	98
	4.4.2 Non-Financial Indicators	101
	4.4.3 Overall Co-operative Performance	103
4.5	Level of Human Capital	105
4.6	Level of Social Capital	109
4.7	Level of Board Participation	113
4.8	Correlation Analysis Between Variables	116
4.9	Structural Model Evaluation	117
4.10	Test of Path Analysis	120
	4.10.1 Human Capital and Co-operative Performance (H ₀ 1)	120
	4.10.2 Social Capital and Co-operative Performance (H ₀ 2)	122
	4.10.3 Mediating Effect of Board Participation on the relationship between Human Capital and Social Capital with Co- Operative Performance (H ₀ 3 and H ₀ 4)	124
4.11	Chapter Summary	127
5	CONCLUSIONS, IMPLICATIONS AND RECOMMENDATION	129
5.1	Introduction	129
5.2	Conclusion of the Study	129
5.3	Contribution of the Study	130
	5.3.1 Body of Knowledge	131
	5.3.2 Practical Contributions	132
5.5	Recommendation	133
	REFERENCES	135
	APPENDICES	170
	BIODATA OF STUDENT	241
	LIST OF PUBLICATIONS	242

LIST OF TABLES

Table		Page
2.1	The Search String Used for the Systematic Review Process	32
2.2	Summary of Reviewed Studies	34
3.1	Number of Co-operatives and Allocation According to Year of Implementation	53
3.2	Distribution of board members based on years of implementation	54
3.3	Sample Size of Board Members Based on Years of Implementation	58
3.4	Operationalisation of the Instrument	58
3.5	Rating Score	62
3.6	Scoring Guideline	64
3.7	Minimum CVR Value	65
3.8	Summary of Cronbach's Alpha (N=30)	67
3.9	Assessment of Convergent Validity	68
3.10	Cross-Loadings Result	70
3.11	Fornell-Larcker Criterion Result	72
3.12	HTMT Result	72
3.13	Summary of Cronbach's Alpha and Composite Reliability	73
3.14	Assessment of Skewness and Kurtosis	78
3.15	Assessment of Multicollinearity	79
3.16	Measurement Properties for Formative Construct	84
3.17	Summary of Measurement Model Evaluation for Reflective and Formative Constructs	85
3.18	Lateral Collinearity Assessment	88

3.19	The Assessment of Structural Measurement Model	90
4.1	Distribution of Respondent's Demographic Profile (N=226)	94
4.2	Co-operatives' Profile by Functions (N=38)	95
4.3	Statistical Analysis of Financial Performance Indicators	99
4.4	Descriptive Analysis of Financial Performance Indicators (N=38)	100
4.5	Descriptive Analysis of Non-Financial Performance Indicators (N=38)	101
4.6	The Overall of Co-Operative Performance by Functions (N=38)	103
4.7	The Level of Co-Operative Performance (N=38)	104
4.8	Descriptive Statistics for Human Capital (N=226)	105
4.9	Level of Human Capital (N=226)	108
4.10	Descriptive Statistics for Social Capital (N=226)	109
4.11	Level of Social Capital (N=226)	112
4.12	Descriptive Statistics for Board Participation (N=226)	113
4.13	The level of Board Participation (N=226)	115
4.14	Guildford Rule of Thumb Table	116
4.15	Pearson Correlation Analysis Result	117
4.16	Structural Model Path Coefficients Test	118
4.17	Result of Coefficients of Determination (R^2) Analysis	119
4.18	Result of Effect Size (f^2) Analysis	119
4.19	Result of Predictive Relevance (Q^2) Analysis	119
4.20	Result of Effect Size (q^2) Analysis	120
4.21	Summarised Results of Hypotheses H_01^a and H_01^b	120

4.22	Result of Mediation Analysis	125
4.23	Summarised Results of Hypotheses H ₀₃ and H ₀₄	126
4.24	The Overall Results of Hypothesis Testing	128



LIST OF FIGURES

Figure		Page
1.1	Conceptual Framework	26
2.1	The Systematic Review Process	33
3.1	Distribution of Co-operatives by State	53
3.2	Sampling Size Calculation Using G*Power	55
3.3	Sampling Technique	57
3.4	Data Collection Procedure	74
3.5	The diagrams of Reflective and Formative Constructs	81
3.6	Reflective Measurement Model Analysis Process	82
3.7	The Redundancy Analysis Result	83
3.8	Measurement Model Analysis	87
3.9	General Mediation Model	91
3.10	Mediation Analysis Procedure	91
4.1	Structural Model Analysis	118

LIST OF EQUATIONS

Equation		Page
3.1	Formula for Estimating Desired Sample Size	56
3.2	CVR Calculation Formula	64
3.3	CVI Calculation Formula	66
3.4	Effect Size (f^2) Calculation	89
3.5	Effect Size (q^2) Calculation	90
4.1	Class Interval Calculation of Human Capital	108
4.2	Class Interval Calculation of Social Capital	111

CHAPTER 1

INTRODUCTION

1.1 An Overview of Rural Community Development Programme in Malaysia

Rural development has always been considered important in the national development agenda since Malaysia became Independent in 1957. Many policies and initiatives have been implemented to promote the well-being of rural dwellers, ranging from agricultural sector growth, rural industrialisation, resettlement schemes, the provision of public facilities and infrastructure (Ngah, 2010). Such initiatives span a range of dimensions and viewpoints, which can be differentiated by programme-based approach and attitude change approach. Hence, for the purpose of this study, the discussion will concentrate on the programme-based approach that has been introduced from Independence to the present day which is created through the national policy.

In the 1950s and 1960s, the rural development began with programmes to provide basic infrastructure and facilities (Ngah, 2010). During this period, the primary focus was on modernising rural development (Ellis and Biggs, 2001) by providing the infrastructure and facilities in order to link the rural economy, provide rural employment and increase productivity and rural farmers' incomes (Chee, 1995). Other than the infrastructure programmes, the Government initiated the new land schemes to overcome the abundance of agricultural land that could be developed (Mohd Arshar and Shamsudin, 1997), which carried out by the federal autonomous bodies such as Federal Land Development Authority (FELDA), Federal Land Consolidation and Rehabilitation (FELCRA), and the state Government. Nevertheless, not much had been reported on the success of the programme to mobilise local participation and the success of community development programmes during this era was not particularly important (Abu Samah and Fariborz, 2009a). Consequently, to promote common attributes and interest in local development among the leaders and community to participate not only in the implementation phase of the development but also in the planning process, the 'Red Book' programme was launched on 6th May 1960 (KPLB, 2018). This is the new approach of rural development that integrates the top-down and bottom-up planning (Ngah, 2010) with the establishment of district development machinery that allows the decision-making process to be partially transferred from the central to the lower level within the state politico-bureaucratic administration system (Abu Samah and Fariborz, 2009a). The Village Development and Security Committee (JKKK), and the District Rural Development Committee (Ngah, 2010) were established as a result of this initiative.

Reflecting the Government's deep concern about the role of people's participation in community development, from the First Malaysia Plan (1966-1970) to the Second Malaysia Plan (1971-1975), a responsive approach focused on an awareness strategy was introduced with a series of slogan and change-awareness initiatives, i.e. "Operation Progress" (Gerakan Maju) in 1966 to uplift the village esprit de corps via group-action based and community improvement-oriented, "Operation Self-help" (Gerakan Jaya Diri) in 1968 mainly aimed at individual self-improvement and productivity oriented, and "Operation Renewal" (Gerakan Pembaharuan) in 1972 which focused on village-level social and economic improvements through community development efforts (Abu Samah and Fariborz, 2009a; Shamsul, 1988).

The Government effort to improve rural development continued in the 1980s with the launched of the New Approach to Village and Rural Development (NAVRD), a modern land and agrarian reform in 1984 (Ministry of Rural Development, 2019a). The objective is to increase small farmers' incomes by improving efficiency and productivity through economies of scale in the production by using the modern production and management methods. This effort supported through the initiative of National Agricultural Policy (NAP) that was introduced in the same year to provide a much more inclusive policy approach to agricultural development (Mohd Arshar and Shamsudin, 1997). Apart from that, a "new" approach to rural development was introduced in 1987 with the launch of Red Book II, which sought to revise the legacy of the Red Book plan of the 1960s (Abu Samah and Fariborz, 2009a; Shamsul, 1988). The highlight of this strategy is when the Government emphasis the districts' significant role in leading rural development in a more organised way, utilising community-based organisations including co-operatives platform (Mohd Arshar and Shamsudin, 1997). In the Fourth Malaysia Plan (1981-1985), in line with the philosophy of the Government that promote the use of community-based organisation as a rural development approach, the role of the co-operative has been acknowledged by the Government as a third sector in contributing to the economy with the launched of the New Co-operative Era in 1983 (Government of Malaysia, 1985). Consequently, the new co-operatives initiated by the Government were formed including the District Development Co-operatives (DDC), the Cottage Industry Co-operatives (CIC), the Village Development Co-operatives (VDC) and the Workers Investment Co-operatives (WIC).

Meanwhile, in the 1990s, the New Philosophy and Strategy of Rural Development (NPSRD) was initiated in 1994 (Ministry of Rural Development, 2019a) as a new philosophy for rural development. This policy is in line with the changes in the overall strategy of the national development towards a new Vision 2020 that shifted the focus from infrastructure development to human capacity building to encourage community involvement in rural development (Ngah, 2010). Subsequently, in 1996 a new programme named Gerakan Desa Wawasan (GDW) was introduced to support this initiative, focusing the empowerment of the rural community to plan and implement development projects towards making the village more progressive, exciting and profitable (Talib, Jusoh, and Ibrahim, 2009). The driving force and the agent of change

behind this initiative were the JKKK which is involved in the planning, organising and proposing village development projects (Mohd Koharuddin Mohd Balwi, 2005). It was hoped that by implementing this programme, a resilient, initiative, independent, knowledgeable and has a high work discipline among the rural community would emerge, ready to take on the challenges of rural modernisation.

In the third millennium, the National Vision Policy was implemented, and during this era, the rural development focused on creating a favourable atmosphere to attract investment while preserving the tranquillity of rural life. The rural development programmes, among others, concentrating on providing good housing, encouraging rural tourism, increasing training and income-raising opportunities for youth and rural settlers as well as establishing small-scale industries for the Orang Asli, such as craft and resource-based integrated human and physical development programmes (Ngah, 2010). This is to promote industrial activity in rural areas so that the rural community's socio-economic conditions can be improved to address the economic disparity between urban and rural areas. The rural communities were given an opportunity to taking part in the comprehensive development, particularly in terms of economic development. In line with the spirit, in 2003, Gerakan Desa Wawasan was changed to Gerakan Daya Wawasan (Mohd Koharuddin Mohd Balwi, 2005) as a continuation of Government efforts to empower rural people in the planning and execution of village programmes, with a greater emphasis on developing three types of capability, namely human capital, financial capital, and marketing capacity (Ministry of Rural Development, 2019b). According to Green and Haines (2015), these elements are referred to as the assets that increase the capacity of the community to improve their quality of life and as an important ingredient in the community economic development (Shaffer, Deller, and Marcouiller, 2006). Subsequently, the Government has introduced the concept of entrepreneurship in this movement to stimulate the entrepreneurial environment with the goal of improving the quality of the community's social and economic environment (Talib et al., 2009). In this sense, the rural community were prepared for the next phase of holistic development in terms of economic changes that benefit the community.

In the 2011, Malaysia embarked on the transformation era, with the goal of being a high-income nation that is inclusive and sustainable by the year 2020 with the rural development transformation has been a major focus of the Tenth Malaysia Plan (2011-2015). Through the implementation of the Government Transformation Program (GTP), the 21st Century Village (21CV) programme has been launched to improve the economy of the rural areas and one of the initiatives is Program Desa Lestari (Prime Minister's Department, 2013). The aim of this programme, which is an expansion of previous initiatives, is to promote community participation in the planning and implementation of projects in various economic sectors, such as agriculture, tourism, plantations, and cottage industries (Ministry of Rural Development, 2019a). Nonetheless, the distinction between this programme from previous initiatives is that the co-operative, rather than the JKKK, is the driving force behind it. This is due to the

fact that using the co-operative as a strategy for community development would enable the community to engage based on their interests (Majee and Hoyt, 2011), as well as minimise political interference, which is typically associated with JKKK (Ahmad, Daud, and Abbasiyannejad, 2015; Ani Binti Ahmad, Abu Daud bin Silong, Abbasiyannejad, and Turiman bin Suandi, 2014). In this regard, the implementation of this programme has strengthened the role of co-operatives as a part of the rural development mechanism in Malaysia since its emergence prior to independence.

1.2 An Overview of Rural Co-operative in Malaysia

The co-operative movement in Malaysia began in 1922 with the sole aim of providing credit facilities to members. Co-operatives in this early period were initiated to combat the problem of the chronic rural indebtedness and deficit spending among wage-earners in places of employment (Fredericks, 1986; Othman and Kari, 2008). The co-operatives were run based on members' preferences without any deep understanding about the principles of co-operatives (Othman, 2014). Until 1930, an increasing number of credit co-operatives can be seen year after year (Janius, 2007) and according to Mokhzani Abdul Rahim (2006), the effectiveness of these co-operatives in addressing the problems of peasant credit is questionable because these co-operatives themselves are in a poor state and have not been able to save farmers from the 'padi kunca' credit system. As a result, the rural co-operative movement has not achieved a significant level of success since the movement has been rooted in Western philosophy's ideological values, which are very different from the Malay traditional social framework (Fredericks, 1986) and there was not much awareness of the co-operative principles and philosophy among co-operative members (Othman, 2014).

It was in the 1950s that the scope of the co-operative movement began to expand in order to enhance the socio-economic status of its members and to become more focused (Rasiah, Mansor, and Chandran, 2015) with the advent of new sectors such as consumer, housing, transport, land development and production (Janius, 2007) other than agriculture, which is normally associated with rural areas (Shamsuddin, Ghafar Ismail, Mahmood, and Abdullah, 2017). Besides that, in order to accelerate agricultural development, the Farmer's Associations were launched in 1958, with the objective of centralising agricultural extension activities and serving as agricultural co-operatives (Othman, 2014; Wells, 1981). Government support to rural co-operatives was further expanded by the Fisheries Development Authority (FDA) establishment, in 1975, to track the development of a co-operative fisheries sector (Malaysia Co-operative Societies Commission, 2011). Furthermore, the federal autonomous bodies as well as individual states' own development schemes, such as the Kedah Development Authority (KEDA), the South Kelantan Development Authority (KESEDAR), and the KETENGAH in Terengganu, encouraged the formation of co-operatives in land development projects to

channel agricultural inputs and facilities to settlers and to transport agricultural produce (Janius, 2007; Othman, 2014)

In the Fourth Malaysia Plan (1981-1985), the role of the co-operative movement was enhanced by the Government as a third sector in contributing to the economy (Government of Malaysia, 1985). A new dimension of the co-operative movement began in the 1980s with the launch of the New Co-operative Era in 1983 (Janius, 2007). During this new era, new co-operatives were formed for rural communities, including the District Development Co-operatives (DDC), the Cottage Industry Co-operatives (CIC), and the Village Development Co-operatives (VDC). DDCs and VDCs were two types of co-operatives primarily designed to enable villagers to participate in local development projects at district and village level, such as the construction of rural roads, religious buildings, community centres, irrigation facilities and housing. Meanwhile, CICs are integrated projects between Department of Co-operative Development (DCD) and other relevant agencies within the Ministry of National and Rural Development, i.e., the Community Development Department (KEMAS), the Council of Trust for Indigenous People (MARA) and the Malaysian Handicraft Development Corporation, to step up measures to promote the cottage industry with a vision to raising the rural economy and alleviating poverty.

Meanwhile, as a result of the expansion of co-operative scope, rural co-operatives in the 1990s were comprised of various types of agro-based co-operatives, fishermen's co-operatives and co-operatives under the Government agencies such as FELDA, FELCRA and the RISDA (Othman and Kari, 2008), restricting the exploration of new sectors such as consumer, housing, transport, land development, and production.

In the 2010, in line with the National Vision Policy to achieve sustainable growth, improve economic resilience, and create a unified and equitable society, the Government has initiated the National Co-operative Policy (2002-2010) in 2002 to promote co-operatives as a strategy to play a bigger role particularly towards poverty eradication, employment creation and business expansion. This policy envisaged a co-operative movement which is active, strong and self-reliant in which the Government as the movement's regulator (Malaysia Co-operative Societies Commission, 2011).

Subsequently, during the transformation era in 2011, the existing policy was improved with the introduction of the National Co-operative Policy II (2011-2020) in order to overcome the issues that had been impeding the co-operative movement's progress, namely management, finance, leadership, and member participation (Malaysia Co-operative Societies Commission, 2011). This new policy emphasises effective business management and governance as vital aspects in guaranteeing the continued presence of co-operatives in the market. As a result, the capacity and competency of co-operatives were strengthened

via the policy of electing informed and dedicated leaders capable of leading the co-operatives to a higher level (Malaysia Co-operative Societies Commission, 2011). This is aligned with the Government's most recent transformation programme, Program Desa Lestari, in which community involvement in co-operative board members was critical in ensuring that the projects planned benefitted the community as a whole (Ministry of Rural Development, 2019a). In this sense, the implementation of Program Desa Lestari has acknowledged the importance of the roles performed by co-operative board members, which indirectly promote co-operative as a strategy for community development initiatives to foster rural economic development.

1.3 Co-operative as Strategy for Community Development

According to International Cooperative Alliance (ICA), co-operative is defined as an autonomous association of persons, united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically controlled enterprise. Unlike other business models, co-operatives are organised on the basis of fundamental principles and values defined by the ICA, namely voluntary and open membership; democratic member control; member economic participation; autonomy and independence; education, training, and information; cooperation among co-operatives; and concern for community (Majee and Hoyt, 2011). Based on these principles, a critical component that has been highlighted is concerning the community that was introduced in 1995 to recognise the connection between co-operatives and community development (Wilkinson and Quarter, 1996).

Zeuli, Freshwater, Markley, and Barkley (2004) highlighted that co-operatives are regarded as potentially important mechanisms for community development as the nature of co-operatives is more community-oriented (Fairbairn, 1991; Wilkinson and Quarter, 1996). This is because the co-operatives are owned and controlled locally (Zeuli et al., 2004) that allows the organisation to achieve greater social and economic benefits in a community (Majee and Hoyt, 2009). Since co-operatives structure are more society-oriented, democratic and people-centred (Majee and Hoyt, 2011), it can mobilise the local resources into a critical mass for the benefit of the community (Zeuli and Radel, 2005). In addition, co-operatives which is community-based organisation (Gibson, 2005) allow the community to participate, negotiate, influence, control, and work together to build community identity, establish community norms, learn to trust each other, and committed to providing benefits for each other (Majee and Hoyt, 2009). Brown (1997) and Othman et al. (2014) in their study have supported this argument and emphasised the importance of co-operative movement as a part of rural development that has a positive impact on the community as a whole (Nurhazani, Azlan, and Kamarul Baharin, 2016). Furthermore, in the context of Malaysia, co-operatives that serve as a mechanism for economic growth in Malaysia (Ungku Abdul Aziz, 1966, 1967), particularly in rural areas (Rasiah et al., 2015) to explore the development of new sectors other than agriculture and fisheries. These scenarios demonstrate

that the Government's attempts to promote the usage of co-operatives in rural Malaysia indirectly reflect co-operatives' potential as a community development strategy.

In order for the co-operatives to function as a viable strategy for community development, Zeuli et al. (2004) noted that it is contingent on the co-operative's success in meeting its goals, as reflected by its performance (Mulgan, 2010; Shamsuddin, Mahmood, Liza Ghazali, Salleh, and Amalina Md Nawi, 2018). According to previous research (e.g., Abdul Aris, Madah Marzuki, Othman, Abdul Rahman, and Hj Ismail, 2018; Beaubien and Rixon, 2012; Bond, 2009), the measurement of co-operative performance consists of financial and non-financial indicators that not only meet traditional corporate performance requirements for survival but also include community benefits (Benos et al., 2018; Franken and Cook, 2015; Hind, 1999; Soboh et al., 2009). The relevance of these indicators is consistent with Enke's (1945) contention that the profit generated by the co-operative must be maximised in order to optimise community welfare which also supported the National Co-operative Policy's objective of ensuring the continued existence of co-operatives in the market (Malaysia Co-operative Societies Commission, 2011). As a consequence, examining co-operative performance is critical since the structure and nature of co-operatives have the ability to generate more substantial social and economic benefits within a community than profit-driven corporations (Fairbairn, 1991; Giacomini et al., 2017; Wilkinson and Quarter, 1996; Zeuli et al., 2004). Hence, in this study the performance of the co-operative will be analysed in order to assess the effectiveness of the co-operative platform as a strategy for community development in Program Desa Lestari.

Nevertheless, the significance of this platform as a strategy for community development programmes is relies on the significant roles performed by co-operative board. This is due to the fact that the co-operative board is not only responsible for and functions to protect the shared interests of the members, but also for the community as a whole (Borzaga and Spear, 2004; Jussila, Goel, and Tuominen, 2012). Apart from that, the desire for the co-operative board to function effectively originates from their shared sense of community, shared values, and shared objectives (Birchall and Simmons, 2004), all of which would benefit the community. It exhibits the usage of the "user-control" concept, which states that co-operative members govern their organisation (Zeuli and Radel, 2005), proving its viability as a community development strategy. It is consistent with Malaysian Government policy, which emphasises the significance of co-operative board roles under the Strategic Trust 2 of the National Co-operative Policy II (Malaysia Co-operative Societies Commission, 2011), including those under Program Desa Lestari. As a result, since the co-operative performance in Program Desa Lestari is reliant on the essential roles of the co-operative board, it is necessary to examine the factors that influence its effectiveness.

1.4 Co-operative in Program Desa Lestari

As articulated above, the Malaysian Government has introduced numerous community development programmes to cater and enhance the rural community's economic, social, and cultural conditions through its development policies since Independence to the present day. Program Desa Lestari is the Government latest community development programme, and this initiative has been implemented for 8 years by promoting co-operative as a strategy for community development. The implementation of this initiative is a continuation of Gerakan Daya Wawasan in order to develop a vibrant and stable rural economy leading to a high-income community, with an emphasis on the expansion of economic activities through the utilisation of village core competencies and potential industries, in accordance with a rural development approach (Ngah, 2010). The essence of this programme, which allows the community to analyse economic conditions, identify economic needs, and assess what should be done to improve economic conditions, is consistent with the community economic development (CED) concept proposed by Shaffer et al., (2006).

The Government has provided a significant amount of allocation to this programme in order to stimulate the economy in rural areas in appropriate sectors through the co-operative platform. 80% of the funds focusing on increasing economic activities and the remaining 20% on developing infrastructure and human capital development to support the economic activities (Ministry of Rural Development, 2018). In the Government's effort to achieve its goals of creating a conducive environment and providing equal employment opportunities for rural people, three main performance indicators (KPIs) have been developed to assess the programme's effectiveness: (1) increase co-operative gross income by at least 5% after one year of implementation; (2) create at least ten new job opportunities; and (3) targeting at least 30% Head of Households (HoH) as the co-operative member (Ministry of Rural Development, 2018). The development of these indicators corresponds with the economic development outcome of community development programme, as outlined by Phillips and Pittman (2008).

The selection of co-operatives in Program Desa Lestari includes rural co-operatives nationwide; thus, a collaboration with the State Government and related agencies such as the Malaysia Co-operative Societies Commission (SKM) was required to organise, identify, and nominate a list of co-operatives with potential economic activities. It is essential to involve all rural community development-related entities, either at the federal or state level, in this initiative because, according to Okubo (2009), the programme's effectiveness is depending on this collaboration in order to identify, evaluate, and provide constructive recommendations in ensuring the viability of the economic projects proposed by the co-operatives.

As stated, since the co-operative platform used in this programme is to explore the development of potential industries, thus the performance measurement of co-operatives in Program Desa Lestari would provide additional context, that includes co-operatives from other functions which indirectly discussing the capacity of this platform as a strategy for community development other than its primary sector, i.e., agriculture.

Therefore, it is important for the current analysis to examine the co-operative performance in this programme, which not only reflects the pattern of performance from various functions but also indirectly reflects the Government's latest policies regarding community development in rural areas.

1.5 Statement of Problem

Program Desa Lestari is the government's most recent community development program, launched in 2013, that promotes co-operatives as a community development strategy. Despite the fact that there are a variety of co-operative movements in rural areas, including co-operatives under the Farmers' Organisation Authority of Malaysia (FOA), the Fisheries Development Authority of Malaysia (LKIM), and Government land development agencies such as the Rubber Industry Smallholders Development Authority (RISDA), FELDA, and FELCRA (Othman, Mansor, and Kari, 2014), the current study focuses primarily on co-operatives under Program Desa Lestari. This is due to the fact that this programme has received substantial Government funding, with a total of RM147.4 million spent over the last 8 years involving 128 co-operatives around the country (Ministry of Rural Development, 2019a). Besides that, the co-operatives chosen for this programme represent a diverse range of functions, including consumers, services, transportation, industry, construction, and agriculture, in contrast to other rural co-operative movements, which have primarily focused on the agricultural sector, that has been the focus of previous studies. (e.g. Arshad and Shamsudin, 1997; Hotta, 1994; Shamsuddin et al., 2017; Visser, 1997; Wells, 1981; Zahari, 1994). In addition, the co-operative board members in Program Desa Lestari were given the opportunity to participate in the planning, implementation, monitoring, and evaluation of economic projects in the villages, which highlighted its differences from other rural co-operatives especially those related to agriculture, where most projects were provided by the Government through FOA, RISDA, FELDA, and FELCRA (A. Othman and Kari, 2008). Furthermore, the implementation of Program Desa Lestari involved collaboration with related agencies, either at the federal or state level, which indirectly demonstrated the Government's commitment to ensuring the success of this programme (Ministry of Rural Development, 2018). All of these efforts, however, could be in vain if the impact of this initiative is not demonstrated by the performance of the co-operatives. As a result, it is important to examine the programme's effectiveness by assessing co-operative performance, which not only illustrates the pattern of performance across different co-operative functions, but also implicitly reflects the Government's most recent policies aimed at improving the rural community.

Although the main purpose of a co-operative is to provide optimum stability and growth conditions for its members (Helmberger and Hoos, 1962), the measurement of its performance is not easy as it depends on the purposes of its establishment (Soboh et al., 2009). In the context of Malaysia, SKM as the authorised agency has established an index consisting of two critical indicators, the financial and non-financial component (Sushila Devi Rajaratnam, Nurizah Nordin, Mohd Shahron Anuar Said, Rafedah Juhan, and Farahaini Mohd Hanif, 2009) which consistent with prior studies (Benos et al., 2018; Giacomini et al., 2017; Mayo, 2011). The performance of the co-operative was determined based on the weighting set by SKM, i.e. 60 per cent was allocated for financial factor and the remaining 40% reflects the non-financial component (Suruhanjaya Koperasi Malaysia, 2019). Although the purpose of the establishment of co-operative might be varied, this similar metric has been standardised and used to measure the performance of co-operatives, including those in rural areas. Therefore, as the current study is evaluating the performance of rural co-operatives in Program Desa Lestari, additional non-financial indicators, i.e., membership growth in the metric, are proposed. Based to SKM's current scale of non-financial metrics used to quantify the performance of Malaysia's top 100 co-operatives, only the number of memberships was included in the measurement of the co-operative's adherence to the principles (Suruhanjaya Koperasi Malaysia, 2017, 2019), which does not reflect the co-operative's actual performance. This is because, according to Sushila Devi Rajaratnam et al. (2009), membership growth is an important measure in demonstrating performance because successful co-operatives are more likely to have membership growth. Furthermore, the proposed membership growth metric is consistent with the key performance indicators outlined for the Program Desa Lestari, which targets Heads of Households (HoH) as co-operative members (Ministry of Rural Development, 2018), in which being a co-operative member would benefit them indirectly in the form of monetary or non-monetary gains. Thus, incorporating membership growth as an additional measure of non-financial performance is considered to be reasonable and relevant in the context of Malaysian rural co-operatives.

Furthermore, the financial indicators of co-operative performance were measured using secondary data, which fit with the use of PLS-SEM as a statistical method proposed in this research. According to Henseler and Sarstedt (2013), the application of PLS-SEM is the best option for secondary data analysis and is particularly useful for archive research (Richter, Cepeda-Carrión, Roldán Salgueiro, and Ringle, 2016; Sarstedt, Ringle, and Hair, 2017). Besides that, in this study, the co-operative performance is treated as a formative indicator, and according to Hair, Risher, et al. (2019), PLS-SEM should be used when integrating formative measurements into the hypothesised model. This emphasised its differences from past collaborative research, which subsequently highlights methodological gaps where the majority of studies (e.g. 'Aini, Hafizah, & Zuraini, 2012; Harun & Mahmood, 2012; Rohana Othman et al., 2016; Yaacob, Hammad Ahmad Khan Zuraini Yaacob, & Hussin, 2014) employed the Statistical Package for Social Science (SPSS) to analyse financial indicators.

The other issue that attracted the attention of the current researcher is related to inadequate literature and the lack of similar research carried out in the context of co-operative governance compared to corporate governance literature (Buang and Abu Samah, 2020). Intan Waheedah, Maslinawati, and Azizah (2013) reported that the literature on co-operative governance, particularly in Malaysia, is still at an early and very limited stage which implicitly indicates that the research on co-operative boards is lagging even further. Nonetheless, a number of studies have been done (e.g., Ismail, Ahmadi, Yatim, and Ismail, 2020; Rohana Othman et al., 2016; Sallehuddin et al., 2018), and the majority of them have adopted the concept of corporate governance to describe the factors that influence the effectiveness of the co-operative board, since both organisations are corporate in nature and have similar governance systems (Hakelius, 2018). Although corporate governance concepts can be extended to co-operatives (Bond, 2009), there is a slight difference between co-operative governance and corporate governance (Saleh and Hamzah, 2017). In the context of co-operative, the board must act in the role of management supervisor and protector of their membership's democratic rights (Berge, Caldwell, and Mount, 2016), while at the same time improving the co-operative performance and ensuring conformance (Cornforth, 2004). Therefore, since the co-operative board is responsible for safeguarding the members' common interests (Jussila et al., 2012) and serves as an important instrument of internal governance (Matoussi and Gharbi, 2011), it is timely to investigate the factors that influence the effectiveness of board members that contribute to co-operative performance, especially in Program Desa Lestari.

Prior scholars reviewed various factors affecting the effectiveness of the co-operative boards and most of them focused more on investigating the impact of board features such as board size, board meeting and board composition that contribute to the performance (e.g., Bond, 2009; Chareonwongsak, 2017; Ghosh and Ansari, 2018; Hakelius, 2018). According to Daily, Dalton, and Cannella (2003), any advance in board effectiveness analysis needs to explore new fields of study and one of the perspectives that can be taken into consideration is the resource provision role of the board (Johnson, Daily, and Ellstrand, 1996). Hillman and Dalziel (2003) embraced this concept and introduced board capital as the main antecedent of the board's resources provision role stemmed from Resource Dependence Theory (Pfeffer and Salancik, 1978). This perspective believes that the board ability to provide resources to the firm is derived from the human capital and social capital of the board of directors. Human capital has been described in the previous studies as the director's knowledge, skills, and abilities (Crook, Todd, Combs, Woehr, and Ketchen, 2011; Khanna, Jones, and Boivie, 2014; Nicholson, 2004) as a result of their investment in education (Becker, 1993; Kor and Sundaramurthy, 2009) and prior experience (Lester, Hillman, Zardkoohi, and Cannella, 2008; Minichilli and Hansen, 2007; Pugliese and Wenstop, 2007). According to Becker (1964;1975), human capital can be categorised into two groups, i.e., general and specific human capital, where Rauch and Rijdsdijk (2013) discovered that both components had an effect on firm performance (Bruderl, Preisendorfer, and Ziegler, 1992; Cooper, Gimeno-Gascon, and Woo, 1994; Dahlqvist, Davidsson, Dahlqvist, and Wiklund, 2000).

Social capital, on the other hand, is characterised by Kim and Cannella (2008) as interpersonal linkages between individuals that can be divided into two types: external social capital and internal social capital (Adler and Kwon, 2002). Each category is derived from different types of network interaction (Kim and Cannella, 2008) and contributes different resources to the board (Pérez-Calero, Villegas, and Barroso, 2016), all of which have an impact on the board's effectiveness and firm performance. Although previous studies have shown the correlation between human capital and social capital on firm performance in the context of corporate governance (Daily et al., 2003; Dalton, Daily, Johnson, and Ellstrand, 1999; Haynes and Hillman, 2010; Hillman and Dalziel, 2003; Pérez-Calero, Villegas, and Barroso, 2016), but this hypothesis has yet to be tested, especially from the Malaysian co-operative perspective. Thus, it is necessary to conduct this study in order to fill gaps and contribute to some knowledge in the field of co-operative, especially literature enrichment from the Malaysians point of views.

Besides that, the studies on co-operative have identified that member participation in the governance as a critical factor in influencing the performance of co-operatives ('Aini, Hafizah, and Zuraini, 2012; Amini and Ramezani, 2008; Sushila Devi Rajaratnam, Noordin, Said, Juhan, and Hanif, 2010). The member participation in the co-operative governance in those studies was displayed in the form of attendance at the annual general meetings and supporting the products or services of their co-operatives. Correspondingly, in the case of Malaysia, the studies to date also portrayed such attributes when discussing the participation of members in the co-operative activities (e.g., 'Aini et al., 2012; Hafizah Hammad Ahmad Khan, Mahazril' Aini Yaacob, Hussin Abdullah, and Siti Hajar Abu Bakar Ah, 2016; Sushila Devi Rajaratnam et al., 2010). On the other hand, Fiegner (2005) emphasised the importance of studying the behaviour of board participation, especially in the firm's strategic decision-making process that indirectly affects firm performance (Judge and Zeithaml, 1992). As enunciated, the significance of co-operative board roles was emphasised in the National Co-operative Policy II (Malaysia Co-operative Societies Commission, 2011), and the importance of board participation in co-operative strategic decision-making was highlighted in the 1993 Co-operative Societies Act (Amendment) 2007 [Act 502], which stated:

"...in general, shall direct, manage and supervise the business or activity, the fund and property of the society, and shall exercise all the necessary powers to ensure full administration and management..." (36)

In addition, from the researcher point of view, having key resources does not ensure that the board functions effectively without the board members being actively participated. This study envisages that the board members' human capital and social capital might be able to improve the level of their participation that indirectly affects co-operative performance. In order to understand the relationship between human capital and social capital with co-operative

performance in Program Desa Lestari, the present study would, therefore, like to propose board participation as a mediating factor. This argument is supported by research conducted by Barroso-Castro, Villegas-Periñan, and Dominguez (2017), who discovered that the knowledge and abilities of directors influence the board's internal processes, i.e., board participation, which contributes to better decision outcomes and improved company performance. Accordingly, the Participation Theory was used to clarify the mediating impact of board participation since the description of the participation process in this study is in line with the project cycle participation process within the rural development programme. In fact, this programme is one of the initiatives under the umbrella of the community development initiative and thus demonstrates the appropriateness of this theory.

To summarise, the current research seeks to extend existing understanding of co-operative governance by employing and integrating the Resource Dependency Theory (Pfeffer and Salancik, 1978) and Participation Theory (Cohen and Uphoff, 1977), both of which are relatively new and have many gaps and inconsistencies. Hence, the present study attempts to contribute to the idea of human capital and social capital as a significant factor for a complete understanding of its contribution to co-operative performance in Program Desa Lestari, arguing that such relationships cannot be accurately interpreted without taking into account the influence of board participation.

1.6 Research Questions

Taking into consideration the nature and significance of the problem statement, the following research questions are of interest and are expected to be addressed in this thesis:

- i. What are the levels of co-operatives' performance in Program Desa Lestari based on their functions?
- ii. What are the levels of human capital, social capital, and board participation in Program Desa Lestari?
- iii. Is there any significant relationship between human capital and social capital with co-operative performance in Program Desa Lestari?
- iv. Does board participation mediate the relationship between human capital and social capital toward co-operative performance in Program Desa Lestari?

1.7 Research Objectives

The general objective of this study is to examine the influences of human capital, social capital, and participation of board members on co-operative performance in Program Desa Lestari. Specifically, the research objectives of this study are:

- i. To determine the levels of co-operatives' performance in Program Desa Lestari based on their functions.
- ii. To determine the levels of human capital, social capital, and board participation in Program Desa Lestari.
- iii. To examine the significant relationship between human capital and social capital with co-operative performance in Program Desa Lestari.
- iv. To examine the mediating role of board participation on the relationship between human capital and social capital with co-operative performance in Program Desa Lestari.

1.8 Significance of the Study

The strength of this study lies in its contribution to the assessment of rural co-operative performance. As previously stated, the performance of the co-operative was measured using financial and non-financial metrics. Nonetheless, in order to accommodate the Program Desa Lestari's objective as well as the nature of a rural co-operative, an additional non-financial metric, namely membership growth, was proposed. Incorporating membership growth as an additional indicator of non-financial performance is deemed relevant and generic that can be used to assess the performance of various types of co-operatives. Furthermore, experts from academia and industry were involved in the verification of the development of the instrument for this study, through which the developed instrument can be used by Governments and their agencies to determine the performance of co-operatives using the indicators of financial and non-financial as proposed in this study.

In terms of knowledge significance, the present thesis aims to broaden existing knowledge of co-operative governance that applies the principle of corporate governance by incorporating and applying the Resource Dependency Theory (Pfeffer and Salancik, 1978) and Participation Theory (Cohen and Uphoff, 1977). In term of academic discussion, with respect to the best knowledge, this current research acts as preliminary research as it is the first to merge the Resource Dependence Theory and Participation Theory into a united framework, particularly in understanding the phenomena of rural co-operative performance in Program Desa Lestari. This situation is due to majority prior research apply the Resource Dependence Theory in context of corporate

governance, while the Participation Theory which is prominently in the rural community development field. Furthermore, studies on co-operative governance have received limited attention in academic research (Intan Waheedah Othman et al., 2013), resulting in the filling of a literature gap, particularly in the context of Malaysian co-operative. Apart from that, this study contributes to the methodology or methods used, particularly in the content validity process. In this study, the Content Validity Ratio (CVR) technique was used to examine the reliability of a newly developed instrument, as one of the most recent contributions to the methodology that the researchers can employ as a reference.

Finally, the study's findings are expected to be shared with the Government and other key policymakers and implementers, particularly in the field of community and co-operative development, via the sharing platform at the departmental, agency, and ministry levels. The information gathered from this study serve as a guiding material for community development practitioners to consider co-operative as a catalyst for the community development programme in Malaysia especially focusing on economic perspective. Furthermore, the results of this research can be substantially beneficial in offering some information on the human capital and social capital factors as additional guidelines for evaluating the readiness of the leaders from various groups of people at the village-level (e.g., MPKK, women's association, youth association, and homestay association) to engage in the community development programmes. By considering these elements, the sustainability of the programme can be improved and expected to foster the creation of economic benefits that help the community transition towards better well-being

1.9 Scope and Limitation of the Study

The current research main scope is to examine the factors of provision role of resources, namely human capital and social capital, as well as the mediating factor of participation among co-operative board members in Program Desa Lestari. Hence, this study confines itself to determine the relationship between human capital and social capital as the independent variable; a mediating factor of board participation; and co-operative performance as the dependent variable. While there might be many other possible factors affecting the co-operative's performance, the subject of concern in the current study focuses on the factors mentioned above that may influence the phenomenon.

Besides that, the scope of this research was restricted to the co-operatives selected in Program Desa Lestari. Other rural co-operatives movement in the rural area, such as those under FOA, LKIM, and Government land development agencies like RISDA, FELDA, and FELCRA, were not included in this research.

Apart from mentioned scopes, the present study also has several limitations that warrant discussion. The first and foremost limitation is that the sample included in this study consisted entirely of micro co-operative clusters in Program Desa Lestari. Consequently, it cannot be assumed that the co-operative performance in this population will exhibit the same magnitude in a different population. The findings of this research should therefore not be generalised to all co-operatives in Malaysia as it varies in size, location and experience.

In addition, the current study employed the purposive sampling where the selection of the respondents was drawn among co-operative board members from Program Desa Lestari within a specific population from the year 2013 until 2015 and only limited involving 50 co-operatives. Thus, to offset this limitations, future research should employ larger and more randomised samples to help improve the generalisability as well as decrease bias in the design.

Last but not least, apart from board participation acting as a mediator of this study, there may be other omitted mediating variables that can be considered. It is possible that other variables not included in this study could be stronger mediators of the relationship between human capital and social capital toward co-operative performance. Nonetheless, due to its important contributions to understanding the phenomenon of the current study, this research confines itself to examining the mediating impact of board participation on the relationship between human capital and social capital with co-operative performance.

1.10 Theoretical Framework

In this study, the theoretical framework serves as the structure that maintains and supports the theories that direct the research work (Dickson, Adu-Agyem, and Hussein, 2018), as well as reflecting how certain variables are logically formed, defined, and interrelated (Sekaran and Bougie, 2016). The research experts proposed that the study should be firmly rooted in an established theory chosen from credible studies (Akintoye, 2017) to guide and align with all aspects of the research process (Dickson et al., 2018). Therefore, it is essential to adopt relevant theories to explain the factors that influences the co-operative performance in Program Desa Lestari.

Pfeffer and Salancik (1978) spawned one of the well-known theories in corporate governance in describing the role of the board in providing resources through the introduction of Resource Dependence Theory (Afza and Nazir, 2014). Resource Dependence Theory guided this study as the foundation to further understand the board function to bring critical resources to the co-operative that indirectly influence the performance. It explains the human capital and social capital as the independent variable, which describes the

primary antecedent of the board's provision role of resources and its relationship with co-operative performance.

Correspondingly, the Participation Theory introduced by Cohen and Uphoff (1977) was employed to explain the mediating effect of the board participation between human capital and social capital towards co-operative performance. In this study, board participation is determined by their involvement in planning, implementation, and monitoring and evaluation of projects in Program Desa Lestari. This study suggested that bundling these theories together would complement each other in explaining the phenomenon of the co-operative performance in Program Desa Lestari and served as essential foundations in developing theoretical arguments, which lead to the research framework of the present thesis.

1.10.1 Resource Dependence Theory

Resource Dependence Theory (RDT) derives from economics (Zahra and Pearce, 1989) and sociology (Pfeffer and Salancik, 1978) disciplines concerned with the distribution of power within the firm and around the organisation (Chambers, Harvey, Mannion, Bond, and Marshall, 2013). The seminal work by Pfeffer and Salancik (1978) described that the organisation is as an open system which depends on its environment for survival and the organisations must enter into transactions and relations with elements in the environment that can provide the required resources and services (Aldrich and Pfeffer, 1976). Besides that, this theory also acknowledges the influence of external factors on organisational behaviour (Hillman, Withers, and Collins, 2009) and it can be reduced through the role played by the board to minimise environmental dependencies (Reitz, 2011) by linking the organisation to the external environment as well as providing resources that enhance various aspects of performance (Wincent, Anokhin, and Örtqvist, 2010). In this context, the board members are viewed as an integral component of an organisation (Boyd, 1990) and played a vital role accessing the desired resources (Afza and Nazir, 2014). Additionally, the board members also facilitating the acquisition of external resources and critical information (Pfeffer and Salancik, 1978) as well as contributing numerous expertise and experiences to the board (Wincent et al., 2010).

The role of board members suggested in the resource dependence literature is the provision role of resources (Johnson, Daily, and Ellstrand, 1996) that directly related to the firm performance (Hillman and Dalziel, 2003). A resourceful board members provide the firm with any feature, skill or advantage that may be considered useful for the firm's operations (Melkumov and Khoreva, 2015) to improve its performance and survival in an unpredictable environment (Hill and Rothaermel, 2003).

Meanwhile, in determining the performance of the company, Zahra and Pearce (1989) stated that the resource dependence scholars referred performance encompassing of financial, systematic and social components as noted under the legalistic perspective. Financial criteria relate to creating shareholder's wealth that usually measures using accounting-based performance measures such as returns on assets, returns on equity and dividend per share (Shamsuddin et al., 2017; Sushila Devi Rajaratnam et al., 2009). On the other hand, systematic performance criteria focused on the firm's survival and growth (Kyriakopoulos, Meulenberg, and Nilsson, 2004), while social performance revolves around the corporate respond to changing societal expectations (Duguid, 2017). Based on these criteria, it corresponds to the explanation of co-operative performance assessment in Program Desa Lestari, which includes financial and non-financial indicators.

Previous studies stated that the main antecedent of the board provision role of resources is board capital (Haynes and Hillman, 2010; Hillman and Dalziel, 2003) that originated from work of human capital by Becker (1975) as well as social capital by Nahapiet and Ghoshal (1998). According to Kim and Kim (2015), the separation of both resources resulted in a lack of understanding of the impact of the resource provision role of the directors on the firm's performance.

According to Courtemanche, Côté, and Schiehl (2013), the board capital taxonomy of Hillman and Dalziel was largely influenced by the four main advantages that boards could offer, as suggested by Pfeffer and Salancik (1978): (1) provision of specific resources, such as expertise and advice from individuals with experience in a variety of strategic areas; (2) information communication channels between external organisations and the firm; (3) assistance in obtaining commitment and support from key players outside the firm; and (4) legitimacy. Similarly, when the members of the co-operative board are appointed, they were required to apply their expertise, skills, and experience to provide helpful advice to improve the co-operative's credibility and reputation, to promote relations with external organisations, and to facilitate the co-operative's strategic planning, implementation, monitoring, and evaluation. It is therefore crucial for this thesis to investigate the co-operative board's provision role of resources extracted from their human capital and social capital, which can have a significant impact on the co-operative's performance in Program Desa Lestari.

1.10.1.1 Human Capital

Human capital is refers to the director's knowledge, skills and abilities (Crook et al., 2011; Khanna et al., 2014; Nicholson, 2004) derived from their investment in education (Becker, 1993; Kor and Sundaramurthy, 2009) and prior experience (Lester et al., 2008; Minichilli and Hansen, 2007; Pugliese and Wenstop, 2007). Harris and Helfat (1997) used the term of human capital and

skills interchangeably by referring to skills as expertise, abilities, and knowledge and this description suited with the definition by the sociology scholars (Becker, 1964; Becker, 1993; Coleman, 1988; Denison, 1962; Psacharopoulos, 1985; Schultz, 1961) which can be differentiated into two categories namely general and specific human capital (Becker, 1975).

General human capital is defined as a set of knowledge and skills to perform generic tasks (Vourvachaki, Slobodyan, and Jerbashian, 2015) that can be applied in different contexts (Rauch and Rijsdijk, 2013). Education is often used as an indicator associated with general human capital (Bruderl et al., 1992). Through structured learning and knowledge generated higher levels of formal education (Khanna et al., 2014), contributing to better cognitive ability (Carpenter and Westphal, 2001). Furthermore, board diversity in terms of their educational background (Pugliese and Wenstop, 2007) is better able to find creative solutions that support effective decision-making (Wincent, Anokhin, and Boter, 2009) and assist the members to fulfil the board's roles in the provision of resources (Pérez-Calero et al., 2016).

Another way for a board to develop their general human capital is through prior experience (Khanna et al., 2014) gained through current and previous professional experience (Pérez-Calero et al., 2016). Moreover, board members with professional experience can be strong indicators of human capital (Bailey and Helfat, 2003; Carpenter and Westphal, 2001; Certo, 2003) because it shapes their thinking, frame of reference, and perceptions (Kor and Sundaramurthy, 2009; Westphal and Fredrickson, 2001). Thus, in this study, general human capital, i.e., education level and previous experience, will be included as a metric to measure the human capital of board members that contributes to co-operative performance in Program Desa Lestari.

Besides that, the director also developed their human capital competencies that derived from a specific human capital (Bruderl et al., 1992; Cooper et al., 1994; Khanna et al., 2014; Kor and Sundaramurthy, 2009; Rauch and Rijsdijk, 2013; Vourvachaki et al., 2015). Specific human capital is refers to a set of skills to enable highly specialised tasks to be performed (Vourvachaki et al., 2015) and valuable only in occupations that require skills similar to the current one (Gathmann and Schönberg, 2007). According to Bruderl et al. (1992), the indicators of specific human capital including industry-specific experience and entrepreneur-specific human capital. The industry-specific experience reflects the experience of similar businesses (Colombo and Grilli, 2005; Cooper et al., 1994), which in the context of co-operatives, according to Hakelius (2018), is shown by the specific experience related to the activities, structure, and understanding of the co-operative form. These features allow them to develop specific skills and tacit knowledge about how boards, firms, and industries operate (Becker, 1993; Nahapiet and Ghoshal, 1998). In comparison, entrepreneur-specific human capital is assessed based on self-employment and leadership experience (Bruderl et al., 1992) or previous management experience as referred to by Rauch and Rijsdijk (2013), which was measured in the current study based on experience as members of the village-level committee (e.g., JKKK, co-operative and Homestay Association).

As a result, in the context of this study, specific human capital is included as an additional parameter to quantify the levels of the human capital of board members that contribute to co-operative performance.

1.10.1.2 Social Capital

The concept of social capital has been used to describe a wide variety of social phenomena since its early use (Nahapiet and Ghoshal, 1998) and this idea has been adopted by economists in describing its impact on the economic outcome (Hayami, 2009). The seminal work of Granovetter (1973) on embeddedness is the most commonly network approach of social capital used in relation to economics performance of firms (Claridge, 2018). Derived from this line, Nahapiet and Ghoshal (1998) defined social capital as the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual. To conceive of the primary antecedent of the board's provision role of resources to the firm, Hillman and Dalziel (2003) have referred to Nahapiet and Ghoshal's (1998) work in defining the concept of social capital, which, in turn, contribute to firm performance. In addition, Adler and Kwon (2002) have suggested differentiating social capital in two forms: external social capital and internal social capital, as each group draws from different styles of network connections and provides the board with different resources (Kim and Cannella, 2008).

External social capital can be described as the extent to which a board members has external contact with the environment including shareholders, customers, vendors, Government authorities, and politicians (Kim, 2005) through bridging and linking (Kim and Cannella, 2008; Lee et al., 2016; Pérez-Calero et al., 2016). The success of the firm depends largely on board member's ability to extract valuable resources from the environment (Pfeffer and Salancik, 1978) to respond to external contingencies (Wincent et al., 2009) as the organisations are not a closed system (Pérez-Calero et al., 2016). In this regard, Kim and Cannella (2008) found out that the board 's external social capital will provide a firm with a competitive advantage through the ability of the board members to offer useful resources (Kim and Cannella, 2007) and external information to mitigate uncertainty (Lee et al., 2016). Similarly, in the co-operative framework, external social capital refers to bridging with other co-operative board members (Yu and Nilsson, 2018) as well as the inter-organisational linking in which co-operative is involved (Liang, Huang, Lu, and Wang, 2015) such as Government agencies, suppliers and customers.

Thus, in this study, the bridging and linking of board members with different external bodies will be examined in order to determine its impact on co-operative performance in Program Desa Lestari.

Whereas internal social capital consists of the ties and relations within the board of directors (Kim and Cannella, 2008), which contribute to the board's cohesiveness (Forbes and Milliken, 1999) in achieving its common purposes through organisational bonding (Lee et al., 2016). This concept, according to Pérez-Calero et al. (2016), is the most suitable approach for analysing the board's ability to function as a group because internal social capital contributes to trust enhancement among the board, which improves the effectiveness of collaboration and communication within the boardroom (Kim and Cannella, 2008). Since a co-operative is also a social enterprise (Defourny and Nyssens, 2008), a similar concept has been used to define the features of the co-operative board members' internal social capital (Crucke and Decramer, 2016). This study will therefore include the bonding as an indicator to determine the internal social capital of the board members in the Program Desa Lestari, which will eventually lead to co-operative performance.

To summarise, Resource Dependence Theory was used as the primary theory in this study to understand the phenomenon associated with the resource provision role of board members derived from human capital and social capital. The current research argued, using this theory, that human capital and social capital acted as an input contributing to the performance of the co-operatives in Program Desa Lestari.

1.10.2 Participation Theory

Cohen and Uphoff's Participation Theory (PT) was introduced in 1977 as one of the prominent social science theories. The way participation is defined depends primarily on the background and context in which it is applied, which can be differentiated into two main contexts: political participation and development participation (Cohen and Uphoff, 1980). Political participation relates mainly to voluntary involvement in political operations in different political systems (Nguyen Long, 2016), while development participation is depicted as individuals involved and benefited in rural development programmes (Awortwi, 2013; Cohen and Uphoff, 1980). Hence, for the purpose of this study, the latter concept is the most appropriate to explain the phenomenon of participation in Program Desa Lestari among the co-operative board members as this initiative is under the scope of the rural development programme and associated with the field of rural community development.

According to Cohen and Uphoff (1977), participation is defined as a process in which a significant number of individuals are involved in decision-making and implementation of programmes, as well as participation in evaluation activities where voluntary and democratic participation of individual is required (Nikkhah and Redzuan, 2009). Meanwhile, Cohen and Manion (1980) pointed out that participation is the systematic involvement of a significant number of people and take efforts and actions guided by their own thoughts and considerations under which they exert control in making decisions regarding their affairs (Raniga and Simpson, 2002; Reid, 2000). The concept of participation in this

paper is therefore based on Cohen and Uphoff, since it is very pertinent to the purposes of this research, which is to examine the phenomenon of participation among co-operative board members in the strategic decision-making of projects in Program Desa Lestari.

1.10.2.1 Participation as a Means or an End

The concept of participation in rural development can be discussed on the basis of distinct understandings by classifying participation as a means or an end (Abu Samah and Fariborz, 2011; Cohen and Uphoff, 1980; Michener, 1998; Nikkhah and Redzuan, 2009). Participation as a means implies the use of participation to attain certain objectives even though it is unsuitable for the requirements and desires of the community and they are expected to follow (Hollnsteiner, 1976), where control remains in the hands of the experts (Parnell and Patsarika, 2011). In this context, participation has been described as an instrument rather than an act of involvement (Oakley and Marsden, 1984) and this sort of participation is a way of exploiting the existing physical, economic and social resources of rural people to attain the goals of development initiatives (Oakley, 1991). The setback of this approach is that the community are not given the opportunity to decide or influence the decision (Abu Samah and Fariborz, 2011) and as a consequence, it failed to fairly benefit rural dwellers (Laah and Yusuf, 2014). Furthermore, participation as a means is the lowest level of participation (Johnston, 1982) and a passive type of participation (Oakley, 1991) because it does not mobilising the people to achieve particular goals (Abu Samah and Fariborz, 2011).

Participation as an end, on the other hand, is a completely distinct idea where community involvement is usually referred to as a 'bottom-up' view (Panda, 2007) and the community are granted the right and control in decision making (Parnell and Patsarika, 2011). Here, the participation acted as a process that promoted the involvement of the people in shaping, deciding and taking part in the development process (Abu Samah and Fariborz, 2011) and the outcome of the process is 'meaningful' (Moser, 1989) and 'genuine' participation (Islam, 2017). This is because the development is initiated and managed by the community, while the Government or service providers play a supportive role as facilitators and consultants (Nikkhah and Redzuan, 2009). In addition, according to Nikkhah and Redzuan (2009), participation as an end is a vibrant method as members of the society take an active role in defining their requirements, prioritising those requirements, mobilising inner and external resources and applying actions to achieve their goals (Awortwi, 2013). Furthermore, Iqtidar (2012) stated that participation as an end also allowed individuals to acquire the abilities, expertise and experience to accept higher responsibility not only to maintain the existence of a project or group but expands the involvement of a person in the creation or establishment of other new projects or community organisations (Abu Samah and Fariborz, 2011).

Therefore, based on the argument, participation as an end or bottom-up approach relatively an appropriate strategy in explaining the concept of co-operative board participation in Program Desa Lestari. This is because the programme enables the community to participate in the governing body as members of the co-operative board. Consequently, the board members representing the co-operative and the community as a whole has the opportunity to propose and participate in the decision-making process on the projects which benefit the community.

1.10.2.2 Dimensions of Participation

This theory develops a framework that outlines three dimensions of participation that provide answer to the questions: (1) 'What' kinds of participation take place, (2) 'Who' participates in them, and (3) 'How' the process of participation occurs (Cohen and Uphoff, 1980). For the purpose of this study, the discussion is further elaborate on the 'What' dimension in explaining the process of participation that can be operationalised into four quantifiable aspects, i.e. decision making, implementing, benefit sharing and evaluation (Abu Samah and Fariborz, 2011; Cohen and Uphoff, 1980). However, Robert (1992) has expended the dimension by introducing the element of project identification, prioritisation, planning and monitoring, while Zadeh and Nobaya Ahmad (2010) put forward an element of maintenance as part of participation process. As the interpretation of Cohen and Uphoff had a major influence in identifying the main stages of the project cycle, this research will use similar typology elements, i.e., planning, implementation, and monitoring and evaluation, to examine the participation of the co-operative board members in Program Desa Lestari. However, the element of participation in benefits was skipped in this study because it is a passive kind of participation (Cohen and Uphoff, 1977) and due to the conflict of its practicability by other researchers in the same field of study (Sheikh, 2015). In addition, since the objective of the current study is to assess board participation in the strategic decision-making process, which is also compatible with Cohen and Uphoff's three elements of participation, these components were measured under one construct, namely, board participation.

1.10.2.3 Co-operative as the Vehicle of Participation

Oakley (1991) asserted that organisation is a basic tool and serves as a vehicle for participation and it is one of the prerequisite elements for maintaining and making effective participation (Budhi, 2008). Finsterbusch and Van Wicklin (1987) emphasised that organised organisations have more influence and accomplish more than unorganised groups, and one of the platforms is co-operatives, which are organised accordance with the ICA's fundamental principles and values (Majee and Hoyt, 2011).

Since the co-operative is systematically governed by democratic control (Shamsuddin et al., 2018), the board members are responsible for conducting and implementing effective governance on the basis of the policies and guidelines approved at the Annual General Meeting (Romaizah Abd Kadir, Khairuddin Idris, and Zoharah Omar, 2016). As a result, their active participation as Chairman, Secretary, Treasurer, and Board Members is essential as a monitoring tool for co-operative administrative and day-to-day operations (Romaizah Abd Kadir et al., 2016), including participation in project planning, implementation, monitoring, and evaluation. This indirectly ensures the platform's relevance as a strategy for community development programs like Program Desa Lestari.

According to Judge and Zeithaml (1992), the board's participation occurred retrospectively in two main stages, namely the formation phase of the strategic decision process and the evaluation phase of monitoring activities. Fiegener (2005) further elaborated on the board's participation, which may influence the firm's strategy in two ways through decision control: (1) strategic plan review, monitoring executive and firm performance tracking (Fama and Jensen, 1983), and (2) management activities such as ratification of strategic suggestions, questioning significant problems, and helping to formulate, evaluate, and decide strategic options (Judge and Zeithaml, 1992). Thus, the ability of the board member to carry out its duties efficiently indirectly manifests the board's efficacy (Petrovic, 2008).

Similarly, in the context of a co-operative, board members are responsible for monitoring management performance, designing long-term strategic plans, assessing management proposals, and understanding the organisation's financial and strategic actions (Bond, 2009), which is consistent with Hakelius's (2018) description of the primary roles of Swedish farmer co-operative boards. These characteristics are compatible with Cohen and Uphoff's (1980) development participation approach in rural development programmes which includes participation in planning, implementation, and monitoring and evaluation.

Thus, Participation Theory was used in this thesis to explain the mediating role of board participation in the relationship between human capital and social capital with co-operative performance in Program Desa Lestari.

1.11 Conceptual Framework

A framework suggested by Pérez-Calero et al (2016) to analyse the provision roles of resources by the board members was adopted, with the introduction of an extended framework for the mediating impact of board participation on the basis of Participation Theory in measuring the performance of the co-operative in Program Desa Lestari.

As stated, the Resource Dependence Theory applied to investigate the significant relationship between human capital and social capital with the co-operative performance in Program Desa Lestari. In this research, the human capital contributes to the ability of the board members to fulfil their duties that obtained from general and specific human capital. Additionally, social capital through external and internal social capital is another measure that influence the board's ability to perform their roles.

Correspondingly, the Participation Theory is applied in this research to examine board participation, which is proposed to mediate the relationship between human capital and social capital with co-operative performance. This study applies the concept of rural development participation in order to understand the process of board participation in the strategic decision-making, which involves the planning, implementation, and monitoring and evaluation of projects in Program Desa Lestari. The degree of board participation is expected to be influenced by board members' human capital, which is derived from both general and specific human capital, as well as an influencing factor of board members' external and internal social capital, where the integration of these constructs is thought to influence co-operative performance.

Following that, a conceptual framework was developed in this study to examine the role of resource provision as well as the participation of co-operative board members in order to assess its influence on co-operative performance in Program Desa Lestari, as represented in Figure 1.1. The research framework illustrates the positions of the exogenous and endogenous variables, as well as board participation as a mediating variable between those variables. The positions of these constructs are consistent with the inquiries proposed earlier through the research objectives.

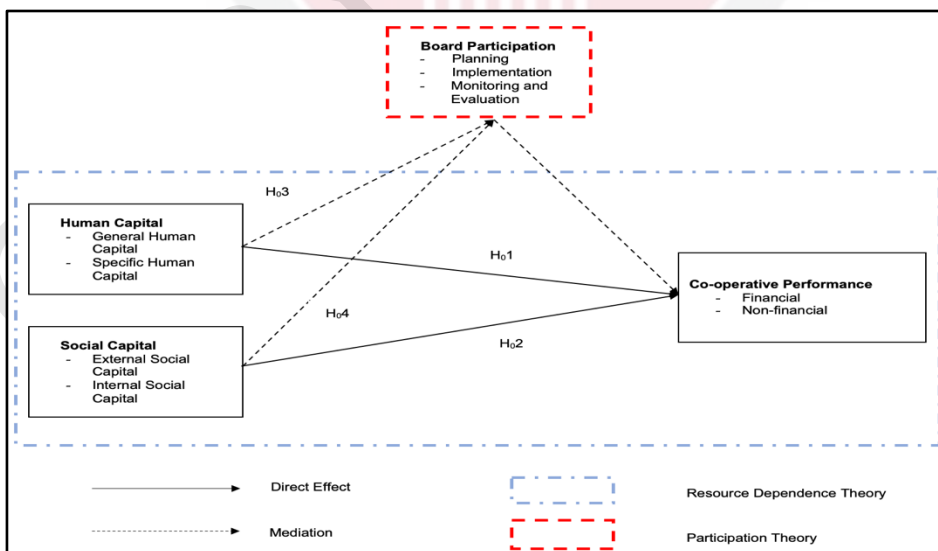


Figure 1.1: Conceptual Framework

Meanwhile, owing to the nature of the current sample, which would provide a different setting, current researchers used the null hypothesis in the formulation of the hypothesis for this study although the previous research as will be discussed in Chapter 2 has demonstrated that there is a positive relationship between variables in the context of the corporate sector. Therefore, as shown in the research framework (Figure 1.1), the following statistical hypotheses were tested:

- H₀1: There is no significant relationship between human capital and co-operative performance in Program Desa Lestari.
- H₀2: There is no significant relationship between social capital and co-operative performance in Program Desa Lestari.
- H₀3: There is no mediating effect of board participation on the relationship between human capital and co-operative performance in Program Desa Lestari.
- H₀4: There is no mediating effect of board participation on the relationship between social capital and co-operative performance in Program Desa Lestari.

1.12 Definition of Terminologies

There are four variables involved in this research namely human capital, social capital, participation, and co-operative performance. Each variable is defined in terms of the conceptual and operational definitions.

1.12.1 Human Capital

Conceptual: Human capital is defined as the skills and knowledge that individuals acquire through their investments in schooling, on-the-job training, and other types of experiences, which can be distinguished between general and specific human capital (Becker, 1964). General human capital is referred to as general knowledge and skills that are not directly related to a particular job and can be applied to different contexts. Meanwhile, specific human capital is attributed to industry-specific experience, previous experience of self-employment or management that cannot be easily transferred to other contexts (Rauch and Rijsdijk, 2013).

Operational: Human capital is operationally interpreted in this thesis as the level of general human capital among the co-operative board members based on the knowledge and skills acquired from schooling and work experience, as well as specific human

capital gained from previous experience in the co-operative board, self-employment, and prior management experience. Human capital was measured in the current study by adapting questions that tested the level of general human capital among co-operative board members based on knowledge and skills acquired through schooling and work experience (Bruderl et al., 1992; Hafizah Hammad Ahmad Khan et al., 2016; Huat, 2010), as well as specific human capital gained from previous experience in the co-operative board, self-employment and prior management experience (Rauch and Rijsdijk, 2013; Tanriverdi, Konana, and Ge, 2007).

1.12.2 Social Capital

Conceptual: Social capital can be referred to as the interpersonal linkages between individuals, both external and internal social capital (Kim and Cannella, 2008). External social capital can be defined as the degree to which a board has outside contacts with the environment through directors' external relations (Kim, 2005), while internal social capital refers to the links between the board directors that contribute to the cohesiveness to function as a group (Adler and Kwon, 2002).

Operational: Social capital is described in this study as the degree to which the member of the co-operative board interacts either externally or internally. In this thesis, external social capital was measured by items that assessed the degree of external interaction through bridging with other co-operative board members (Goo, Kishore, Rao, and Nam, 2009; Ng and Feldman, 2010; Subramaniam and Youndt, 2005; Sun, Fang, Lim, and Straub, 2012; Tony Liston Hutagalung, 2016) and linking with groups and individuals who hold positions of power or in positions of influence (Kim and Cannella, 2008; Ng and Feldman, 2010; Tony Liston Hutagalung, 2016). Whereas internal social capital is measured by the density of relationships among members of the co-operative board through bonding (Fredette and Bradshaw, 2012; Leana and Pil, 2006) .

1.12.3 Participation

Conceptual: This dissertation adopted the definition provided by Cohen and Uphoff (1977), which referred to participation as a process in which a significant number of individuals are engaged in the main stages of the project cycle including planning, implementation, and monitoring and evaluation of programmes.

Operational: Participation is defined in this study as the engagement of appointed members of the co-operative board in the strategic decision-making process that includes: (1) planning, (2) implementation, and (3) monitoring and evaluation of projects in Program Desa Lestari. Subsequently, for the purposes of this thesis, the items adapted and adopted from Rilwanu (2014) and Sheikh (2015) covering all three components were used to measure the construct.

1.12.4 Co-operative Performance

Conceptual: Co-operative performance is characterised as a multidimensional dimension (Sushila Devi Rajaratnam et al., 2009) encompassing financial, systematic and social components (Zahra and Pearce, 1989). Financial criteria relate to the creation of shareholder wealth, which is usually measured by accounting-based performance measures (Shamsuddin et al., 2017; Sushila Devi Rajaratnam et al., 2009). Meanwhile, systematic performance criteria focused on the survival and growth of the firm (Kyriakopoulos et al., 2004) and social performance revolve around organisational responses to changing societal expectations (Duguid, 2017).

Operational: In this study, the measurement of co-operative performance based on financial indicators in term of profitability, liquidity, indebtedness ratios and wealth evaluation. Meanwhile, non-financial measures include the administration and management aspect of the co-operative, service and welfare of members, human capital development, employment opportunity and adherence to the principles of the co-operatives. The items used to assess the co-operative's financial and non-financial indicators were mostly adapted and adopted from SKM's existing index (Suruhanjaya Koperasi Malaysia, 2017, 2019) and also adjusted from indicators developed by Cooperative Development Authority of the Republic of the Philippines (Cooperative Development Authority, 2013). Meanwhile, as proposed by Sushila Devi Rajaratnam et al. (2009), additional measures of membership growth for non-financial indicators were adopted.

1.13 Outline of Thesis

This thesis is organised into five chapters. Each chapter represents a different stage in the research process. Chapter 1 begins with a research introduction which provides an overview of the relevant research background and problem statement. This chapter also highlights research questions, research objectives, the scope, and limitations of the research, as well as the

significance of the study. In addition, the theoretical and conceptual frameworks for the current study was provided in this chapter. This chapter concludes with the definition of the terminology applied to the research. A literature review is performed in Chapter 2, in order to explain the state of research related to factors including the mediating effects that influence the cooperative performance. Based on the literature analysis, the literature gaps are identified. In turn, in relation to the research questions, a set of research hypotheses is developed, as presented in Chapter 1.

In chapter 3, the research design is outlined and discussed. This includes a comprehensive description of the survey procedures. The methodology used for the development of research instruments is described, and the instrument's reliability and validity are reported. In addition, the Partial Least Squares Structural Equation Modeling (PLS-SEM) is introduced as the modelling technique for structural equation used to analyse the data.

Chapter 4 presents the empirical findings and interpretations on the questions of the levels of co-operatives' performance based on their functions, human capital, social capital, and board participation of the respondents, and followed by the hypotheses testing. In this chapter, the application of SmartPLS version 3.3.2 was discussed in analysing and investigating the measurement and structural model of this research.

The research summary, conclusion, implications, and recommendations for future work are presented in Chapter 5. This chapter begins with a summary of the research's major findings in relation to the proposed research objectives. Furthermore, the conclusions are presented in this chapter, which is followed by contributions to the body of knowledge and practical contributions. Finally, future work recommendations are provided.

REFERENCES

- 'Aini, Y. M., Hafizah, H. A. K., and Zuraini, Y. (2012). Factors affecting cooperatives' performance in relation to strategic planning and members' participation. *Procedia - Social and Behavioral Sciences*, 65, 100–105.
- Abdallah, S., Bressers, H., and Clancy, J. (2015). Potential electricity cooperatives in Kenya: Could social capital be a barrier? *Community Development Journal*, 50(2), 213–228.
- Abdul Hamid, A. S. (1976). Farmers' cooperatives: Tool for development of small farmers in Malaysia. *Farmers' Organizations Authority*.
- Abolfazl Rahmatizadeh, Hossein Barani, Ahmad Abedi Sarvestani, and Amir Mozafar Amini. (2016). Investigating Factors affecting the success of official and unofficial range management cooperatives in three provinces of Iran. *Journal of Rangeland Science*, 6(2), 144–155.
- Abu Samah, A., and Fariborz, A. (2009a). Community Development programmes in Malaysia. *Nature and Science*, 7, 86–89.
- Abu Samah, A., and Fariborz, A. (2009b). People's Participation in community development: A case study in a planned village settlement in Malaysia. *Marsland Press World Rural Observations*, 1(2), 45–54.
- Abu Samah, A., and Fariborz, A. (2011). The Theoretical and Conceptual Framework and Application of Community Empowerment and Participation in Processes of Community Development in Malaysia. *Journal of American Science*, 7(2), 186–195.
- Acedo, F. J., and Jones, M. V. (2007). Speed of internationalization and entrepreneurial cognition: Insights and a comparison between international new ventures, exporters and domestic firms. *Journal of World Business*, 42(3), 236–252.
- Adhikari, K. P., and Goldey, P. (2010). Social Capital and its "downside": The impact on sustainability of induced community-based organizations in Nepal. *World Development*, 38(2), 184–194.
- Adler, P. S., and Kwon, S.-W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*.
- Afza, T., and Nazir, M. S. (2014). Theoretical perspective of corporate governance: A review. *European Journal of Scientific Research*, 119(2), 255–264.
- Ahmad, A., Daud, A., and Abbasiyannejad, M. (2015). Competencies of effective village leadership in Malaysia. *Journal of Asian Development Studies*, 4(2), 7–21.

- Akintoye, A. (2015). Developing theoretical and conceptual frameworks. In Proceedings of *EDMIC research workshop*. Ile-Ife: Faculty of Environmental Design and Management, Obafemi Awolowo University, Ile-Ife, Nigeria. Mac 3, 2015.
- Akter, S., Fosso Wamba, S., and Dewan, S. (2017). Why PLS-SEM is Suitable for Complex Modelling? An Empirical Illustration in Big Data Analytics Quality. *Production Planning and Control*, 28(11–12), 1011–1021.
- Aldrich, H. E., and Pfeffer, J. (1976). Environments of organizations. *Annual Review of Sociology*, 2(1), 79–105.
- Allahyari, T., Hassanzadeh, R. N., Khosravi, Y., and Zayeri, F. (2011). Development and evaluation of a new questionnaire for rating of cognitive failures at work. *International Journal of Occupational Hygiene*.
- Altman, M. (2015). Cooperative organizations as an engine of equitable rural economic development. *Journal of Co-Operative Organization and Management*, 3(1), 14–23.
- American Psychological Association (APA). (2002). Ethical principles of psychologists and code of conduct. *The American Psychologist*, 57(12), 1060–1073.
- Amini, A. M., and Ramezani, M. (2008). Investigating the success factors of poultry growers' cooperatives in Iran's western provinces. *World Applied Sciences Journal*, 5(1), 81–87.
- Ani Binti Ahmad, Abu Daud bin Silong, Abbasiyannejad, M., and Turiman bin Suandi. (2014). Roles and issues of village development and security committee (VDSC) institution for rural development in Malaysia. *J. Asian Dev. Stud*, 3(4), 51–63.
- Arshad, F. M., and Shamsudin, M. N. (1997). *Rural development model in Malaysia*. Universiti Putra Malaysia.
- Ary, D., Jacobs, L. C., Sorensen, C. K., and Walker, D. A. (2010). *Introduction to Research in Education* (8th ed.). CA, USA, Cengage Learning.
- Awortwi, N. (2013). The riddle of community development: Factors influencing participation and management in twenty-nine african and latin American communities. *Community Development Journal*, 48(1), 89–104.
- Ayre, C., and Scally, A. J. (2014). Critical values for Lawshe's content validity ratio: revisiting the original methods of calculation. *Measurement and Evaluation in Counseling and Development*, 47(1), 79–86.

- Azadi, H., Hosseininia, G., Zarafshani, K., Heydari, A., and Witlox, F. (2010). Factors influencing the success of animal husbandry cooperatives: A case study in Southwest Iran. *Journal of Agriculture and Rural Development in the Tropics and Subtropics*, 111(2), 89–99.
- Babbie, E. (2011). *The Basics of Social Research* (5th ed.). CA, USA, Cengage Learning.
- Bagozzi, R. P., and Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of Marketing Science*, 16(1), 74–94.
- Bailey, E. E., and Helfat, C. E. (2003). External management succession, human capital, and firm performance: An integrative analysis. *Managerial and Decision Economics*, 24(4), 347–369.
- Baron, R. M., and Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173–1182.
- Barroso-Castro, C., Villegas-Periñan, M. del M., and Casillas-Bueno, J. C. (2016). How boards' internal and external social capital interact to affect firm performance. *Strategic Organization*, 14(1), 6–31.
- Barroso-Castro, C., Villegas-Periñan, M. M., and Dominguez, M. (2017). Board members' Contribution to Strategy: The Mediating Role of Board Internal Processes. *European Research on Management and Business Economics*, 23(2), 82–89.
- Bashir, R., Surian, D., and Dunn, A. G. (2018). Time-to-update of systematic reviews relative to the availability of new evidence. *Systematic Reviews*, 7(1), 195.
- Beaubien, L., and Rixon, D. (2012). Key Performance indicators in co-operatives : directions and principles. *Journal of Co-Operative Studies*, 45 (2), 5–15.
- Becker, G. S. (1964). *Human Capital*. Columbia University Press: New York
- Becker, G. S. (1975). *Human capital: A theoretical and empirical analysis*. New York: Columbia University Press
- Becker, G. S. (1993). Chicago Unbound The economic way of looking at life. *Economic Sciences*, (12), 38–58.
- Benos, T., Kalogeras, N., Verhees, F. J. H. M., Sergaki, P., and Pennings, J. M. E. (2016). Cooperatives' organizational restructuring, strategic attributes, and performance: The case of agribusiness cooperatives in Greece. *Agribusiness*, 32(1), 127–150.

- Benos, T., Kalogeras, N., Wetzels, M., de Ruyter, K., and Pennings, J. M. E. (2018). Harnessing a “currency matrix” for performance measurement in cooperatives: A multi-phased study. *Sustainability (Switzerland)*, 10(12), 1–38.
- Berge, S., Caldwell, W., and Mount, P. (2016). Governance of nine Ontario food co-operatives. *Annals of Public and Cooperative Economics*, 87(3), 457–474. 4
- Bhattacharjee, A. (2012). *Social science research: Principles, methods, and practices* (2nd ed.). Florida, USA, University of South Florida
- Bijman, J., Hanisch, M., and van der Sangen, G. (2014). Shifting control? The changes of internal governance in agricultural cooperatives in the EU. *Annals of Public and Cooperative Economics*, 85(4), 641–661.
- Bijman, J., Hendrikse, G., and van Oijen, A. (2013). Accommodating two worlds in one organisation: Changing board models in agricultural cooperatives. *Managerial and Decision Economics*, 34(3–5), 204–217.
- Birchall, J., and Simmons, R. (2004). What motivates members to participate in co-operative and mutual businesses? *Annals of Public and Cooperative Economics*, 75(3), 465–495.
- Bolger, P. (1985). *Working Together: The Co-operative Concept*. Dublin, Ireland: The O'Brien Press Ltd
- Bollen, K., and Lennox, R. (1991). Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin*, 110(2), 305.
- Bontis, N., Ciambotti, M., Palazzi, F., and Sgro, F. (2018). Intellectual capital and financial performance in social cooperative enterprises. *Journal of Intellectual Capital*.
- Borda-Rodriguez, A., Johnson, H., Shaw, L., and Vicari, S. (2016). What makes rural co-operatives resilient in developing countries? *Journal of International Development*, 28(1), 89–111.
- Borzaga, C., Depedri, S., and Tortia, E. (2011). Organisational variety in market economies and the role of co-operative and social enterprises: A plea for economic pluralism. *Journal of Co-Operative Studies*, 44(1), 19–30.
- Borzaga, C., and Spear, R. (2004). Trends and Challenges for Co-operatives and Social Enterprises in Developed and Transition Countries. Trento, Italy, Edizioni31
- Bourne, M., Neely, A., Mills, J., and Platts, K. (2003). Implementing performance measurement systems: A literature review. *Int. J. Business Performance Management* (Vol. 5).

- Boyd, B. (1990). Corporate linkages and organizational environment: A test of the resource dependence model. *Strategic Management Journal*, 11(6), 419–430.
- Boyd, S., Boland, M., Dhuyvetter, K., and Barton, D. (2007). Determinants of return on equity in US local farm supply and grain marketing cooperatives. *Journal of Agricultural and Applied Economics*, 39(1), 201–210.
- Boyle, G. E. (2004). The economic efficiency of Irish dairy marketing co-operatives. *Agribusiness: An International Journal*, 20(2), 143–153.
- Bradshaw, P., Murray, V., and Wolpin, J. (1992). Do nonprofit boards make a difference? An exploration of the relationships among board structure, process, and effectiveness. *Nonprofit and Voluntary Sector Quarterly*, 21(3), 227–249.
- Brown, L. H. (1997). Organizations for the 21st Century? Co-operatives and “New” forms of organization. *Canadian Journal of Sociology/Cahiers Canadiens de Sociologie*, 65–93.
- Brown, T. A. (2016). *Confirmatory Factor Analysis for Applied Research* (2nd ed.). New York, USA, The Guilford Press.
- Bruderl, J., Preisendorfer, P., and Ziegler, R. (1992). Survival Chances of newly founded business organizations. *American Sociological Review*, 57(2), 227.
- Bruynis, C. L., Goldsmith, P., Hahn, D. E., and Taylor, W. J. (2001). Key success factors for emerging agricultural marketing cooperatives. *Journal of Cooperation*, 16, 14–24.
- Bryman, A. (2012). *Social Research Methods* (4th ed.). New York, USA Oxford University Press.
- Buang, M., and Abu Samah, A. (2020). Systematic Review of Factors Influencing the Effectiveness of the Co-operative Board. *REVESCO Revista de Estudios Cooperativos*, (136), 1–15.
- Budhi, G. S. (2008). Escalating people’s participation in rural development through GO-NGO collaboration. *Forum Penelitian Agro Ekonomi*, 26(1), 58–70.
- Burt, R. S. (1980). Cooptive corporate actor networks: A reconsideration of interlocking directorates involving American manufacturing. *Administrative Science Quarterly*, 557–582.

- Carpenter, M. A., and Westphal, J. D. (2001). The strategic context of external network ties: Examining the impact of director appointments on board involvement in strategic decision making. *Academy of Management Journal*.
- Carr, A., Kariyawasam, A., and Casile, M. (2008). A Study of the organizational characteristics of successful cooperatives. *Organisation Development Journal*, 26(1), 79–87.
- Certo, S. T. (2003). Influencing initial public offering investors with prestige: Signaling with board structures. *Academy of Management Review*, 28(3), 432–446.
- Chaddad, F. R. (2006). Performance Measurement of User-Owned Organizations: An Evaluative Survey of the Literature. In *Proceedings of the 30^o Encontro da ANPAD*, Salvador, Brazil, September 23-27, 2006.
- Chambers, N., Harvey, G., Mannion, R., Bond, J., and Marshall, J. (2013). Towards a framework for enhancing the performance of nhs boards: a synthesis of the evidence about board governance, board effectiveness and board development. *Health Services and Delivery Research*, 1(6), 1–138.
- Chareonwongsak, K. (2017). Enhancing board motivation for competitive performance of Thailand's co-operatives. *Journal of Co-Operative Organization and Management*, 5(1), 1–13.
- Chee, S. (1995). Rural development in plural society of West Malaysia. *Approaches to Rural Development: Some Asian Experiences*, Ed. Inayatullah, Kuala Lumpur: APDC.
- Chen, H. L. (2014). Board capital, CEO power and R&D investment in electronics firms. *Corporate Governance: An International Review*, 22(5).
- Chesnick, D. (2005). Measuring Top 100 Co-op Performance. *Rural cooperatives*, 40, 28-29.
- Cheuk, S. (2012). The co-operative rating system and the internal management factors influencing the performance of co-operatives in Sabah, Malaysia: An exploratory study. *Malaysian Accounting Review*, 11(2), 69–94.
- Chi, T. (1994). Trading in strategic resources: Necessary conditions, transaction cost problems, and choice of exchange structure. *Strategic Management Journal*, 15(4), 271–290.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. *Modern Methods for Business Research*, 295(2), 295–336.

- Choi, E., Choi, W., Jang, S., and Park, S. (2014). Does the effectiveness of board of directors affect firm performance of consumer co-operatives? The case of iCOOP Korea. *Annals of Public and Cooperative Economics*, 85(3), 371–386.
- Claridge, T. (2018). Functions of social capital—bonding, bridging, linking. *Social Capital Research*.
- Simply Performance*; Co-operative UK, England, 2013.
- Coff, R. W. (1997). Human assets and management dilemmas: coping with hazards on the road to resource-based theory. *The Academy of Management Review*, 22(2), 374.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). New Jersey, USA, Lawrence Erlbaum Associates.
- Cohen, J., and Uphoff, N. (1977). *Rural Development Participation: Concepts and Measure for Project Design, Implementation and Evaluation*, Center for International Studies, Rural Development Committee, Monograph no.2, Ithaca: Cornell University.
- Cohen, J., and Uphoff, N. (1980). Participation 's place in rural development : Seeking clarity through specificity. *World Development*, 8, 213–235.
- Cohen, L., and Manion, L. (1980). *Research methods in education*. London, England, RoutledgeFalmer.
- Coleman, J. S. (1988). Social Capital in the creation of human capital. *American Journal of Sociology*, 94, S95–S120.
- Colombo, M. G., and Grilli, L. (2005). Founders' human capital and the growth of new technology-based firms: A competence-based view. *Research Policy*, 34(6), 795–816.
- Cooper, A. C., Gimeno-Gascon, F. J., and Woo, C. Y. (1994). Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing*, 9(5), 371–395.
- Cooperative Development Authority of the Republic of the Philippines, 2013, Cooperative performance questionnaire. <https://www.slideshare.net/jobitonio/cooperative-performance-questionnaire-1132013> (accessed February 7, 2020)
- Cornforth, C. (2001). What makes boards effective? An examination of the relationships between board inputs, structures, processes and effectiveness in non-profit organisations. In *Corporate Governance: An International Review* (Vol. 9, pp. 217–227).

- Cornforth, C. (2004). The governance of cooperatives and mutual associations: A paradox perspective. *Annals of Public and Cooperative Economics*, 75(1), 11–32.
- Coulson-Thomas, C. (1992). Developing competent directors and effective boards. *Journal of Management Development*.
- Courtemanche, L., Côté, L., and Schiehl, E. (2013). Board capital and strategic turnaround: A longitudinal case study. *International Journal of Disclosure and Governance*, 10(4), 378–405.
- Creswell, J. W. (2012). *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed., Vol. 4). Boston, USA, Pearson.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334.
- Crook, T. R., Todd, S. Y., Combs, J. G., Woehr, D. J., and Ketchen, D. J. (2011). Does human capital matter? a meta-analysis of the relationship between human capital and firm performance. *Journal of Applied Psychology*, 96(3), 443–456.
- Crucke, S., and Decramer, A. (2016). The development of a measurement instrument for the organizational performance of social enterprises. *Sustainability (Switzerland)*, 8(2).
- D'Amato, A., and Gallo, A. (2019). Bank institutional setting and risk-taking: the missing role of directors' education and turnover. *Corporate Governance (Bingley)*, 19(4), 774–805.
- D'Silva, J. L., Bahaman Abu Samah, and Hayrol Azril Mohamad Shaffril. (2009). Differences in the perception on leadership of the village development and security committee. *Journal of Agricultural Extension and Rural Development*, 1(2), 34–41.
- Daane, J. R. V. (1982). Responses of Peasant Paddy Growers to Farmers' Organizations in west Malaysia. Wageningen: Afd. Sociale Wetenschappen Landbouwhogeschool.
- Dahlqvist, J., Davidsson, P., Dahlqvist, J., and Wiklund, J. (2000). Initial conditions as predictors of new venture performance: a replication and extension of the cooper et al. study. *Enterprise and Innovation Management Studis*, 1(1), 1–17.
- Daily, C. M., Dalton, D. R., and Cannella, A. A. (2003). Corporate governance: decades of dialogue and data. *Academy of Management Review*, 28(3), 371–382.

- Dalton, D. R., Daily, C. M., Ellstrand, A. E., and Johnson, J. L. (1998). Meta-analytic reviews of board composition, leadership structure, and financial performance. *Strategic Management Journal*, 19(3), 269–290.
- Dalton, D. R., Daily, C. M., Johnson, J. L., and Ellstrand, A. E. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management Journal*, 42(6), 674–686.
- Dalziel, T., Gentry, R. J., and Bowerman, M. (2011). An Integrated agency-resource dependence view of the influence of directors' human and relational capital on firms' R&D spending. *Journal of Management Studies*, 48(6), 1217–1242.
- Davis, L. L. (1992). Instrument review: Getting the most from a panel of experts. *Applied Nursing Research*, 5(4), 194–197.
- Defourny, J., and Nyssens, M. (2008). Social enterprise in Europe: recent trends and developments. *Social Enterprise Journal*, 4(3), 202–228.
- Denison, E. F. (1962). *Sources of Economic Growth in the United States and the Alternatives Before Us*. Cambridge University Press.
- Derauh, H. Membership participation, organizational performance and developmental change: a comparative study of selected farmers' associations in West Malaysia. University Microfilms International, 1976.
- DeVellis, R. (2003). *Scale Development: Theory and Applications*. Thousand Oaks, CA, USA, Sage Publications.
- Dickson, A., Adu-Agyem, J., and Hussein, E. K. (2018). Theoretical and conceptual framework: Mandatory ingredients of a quality research. *International Journal of Scientific Research*, 7(1), 438–441.
- do Valle, P. O., and Assaker, G. (2016). Using partial least squares structural equation modeling in tourism research: A review of past research and recommendations for future applications. *Journal of Travel Research*, 55(6), 695–708.
- Duguid, F. (2017). Non-financial tools and indicators for measuring the impact of co-operatives. *Journal of Co-operative Accounting and Reporting*, 5(1), 40–54.
- Dzulkarnain bin Musa. Kesan Penyederhana Orientasi Pasaran dan Penyertaan Ahli-Ahli Terhadap Hubungan Antara Orientasi Keusahawanan dan Prestasi Perniagaan Koperasi. Universiti Utara Malaysia, 2014.
- Ellis, F., and Biggs, S. (2001). Evolving Themes in Rural Development 1950s-2000s. *Development Policy Review*, 19(4), 437–448.

- Enke, S. (1945). Consumer coöperatives and economic efficiency. *The American Economic Review*, 148–155.
- Erdfelder, E., Faul, F., and Buchner, A. (1996). GPOWER: A general power analysis program. *Behavior Research Methods, Instruments, and Computers*, 28(1), 1–11.
- Ernita, Firmansyah, and Martial, T. (2020). Entrepreneurship attitude of managers, member participation, and cooperative performance: Evidence from Indonesia. *Management Science Letters*, 10(8).
- Esa, A. M. (2015). Measuring economic and social efficiencies of area farmers organization in Malaysia. *Malaysian Journal of Co-Operative Management*, 11(1), 93–110.
- Fahmi, Z., Hamzah, A., Muhammad, M., Yassin, S. M., Samah, B. A., D'Silva, J. L., and Shaffril, H. A. M. (2013). Involvement in agro-tourism activities among communities in Desa Wawasan Nelayan villages on the East Coast of Malaysia. *Asian Social Science*, 9(2), 203.
- Fairbairn, B. Co-operatives and community development: Economics in social perspective. Univ of Saskatchewan, 1991.
- Falk, R. F., and Miller, N. B. (1992). *A primer for soft modeling*. Akron, USA, University of Akron Press.
- Fama, E. F., and Jensen, M. C. (1983). Agency problem and residual claims. *Journal of Law and Economics*, 26(2), 1–29.
- Faridon, M. Peranan Koperasi Pengeroka di Tanah Rancangan Felda. University of Malaya, 1986.
- Faul, F., Erdfelder, E., Lang, A. G., and Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods* (Vol. 39, pp. 175–191).
- Fiegner, M. K. (2005). Determinants of board participation in the strategic decisions of small corporations. *Entrepreneurship: Theory and Practice*, 29(5), 627–650.
- Finkelstein, S., and Mooney, A. C. (2003). Not the usual suspects: How to use board process to make boards better. *Academy of Management Perspectives*, 17(2), 101–113.
- Finsterbusch, K., and Van Wicklin, W. A. (1987). The contribution of beneficiary participation to development project effectiveness. *Public Administration and Development*, 7(1), 1–23.
- Flora, J. L. (1998). Social capital and communities of place. *Rural Sociology*, 63(4), 481–506.

- Forbes, D. P., and Milliken, F. J. (1999). Cognition and corporate governance: Understanding board of directors as strategic decision-making groups. *Academy of Management Review*, 24(3), 489–505.
- Fornell, C., and Bookstein, F. L. (1982). Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing Research*, 19(4), 440–452.
- Fornell, C., and Cha, J. (1994). Advanced methods of marketing research, ed. RP Bagozzi. *European Business Review*, 52–78.
- Fornell, C., and Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Franken, J. R. V, and Cook, M. L. (2015). Informing measurement of cooperative performance. In *Interfirm networks* (pp. 209–226). Springer.
- Fredericks, L. J. (1977). Ideology and organizations in agricultural development: The case of Malaysia. *Sociologia Ruralis*, 17(1), 191–202.
- Fredericks, L. J. (1986). *The co-operative movement in west Malaysia: Policy, structure and institutional growth*. Department of Publications, University of Malaya.
- Fredericks, L.J., G. Kalshoven and J.R.V. Daane (1980), The role of farmers' organizations in two paddy farming areas in west Malaysia. Wageningen: Afd. Sociale Wetenschappen Landbouwhogeschool.
- Fredette, C., and Bradshaw, P. (2012). Social capital and nonprofit governance effectiveness. *Nonprofit Management and Leadership*, 22(4), 391–409.
- Gathmann, C., and Schönberg, U. (2007). How general is human capital? A task-based approach. *Journal of Labor Economics*, 28(1), 1–49.
- Genzoglani, A. (1997). Economic and Financial Performance of Cooperatives and Investor-Owned Firms: An Empirical Study. *Strategies and Structures in the Agri-food Industries* (pp. 3–19).
- Gholami, R., Sulaiman, A. B., Ramayah, T., and Molla, A. (2013). Senior managers' perception on green information systems (IS) adoption and environmental performance: Results from a field survey. *Information and Management*, 50(7), 431–438.
- Ghosh, S., and Ansari, J. (2018). Board characteristics and financial performance: Evidence from Indian cooperative banks. *Journal of Co-Operative Organization and Management*, 6(2), 86–93.

- Giacomini, D., Chiaf, E., and Mazzoleni, M. B. (2017). How to Measure Performance in Cooperatives?: A Multiple Case Study. In *Handbook of Research on Managerial Solutions in Non-Profit Organizations* (pp. 346–365). Hershey, PA: IGI Global.
- Gibson, R. The Role of Co-operatives in Community Economic Development. RDI Working Paper, Manitoba, Canada, 2005.
- Gold, A. H., Malhotra, A., and Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18(1), 185–214.
- Golovina, S., Hess, S., Nilsson, J., and Wolz, A. (2014). Social capital in Russian agricultural production co-operatives. *Post-Communist Economies*, 26(4), 522–536.
- Goo, J., Kishore, R., Rao, H. R., and Nam, K. (2009). The role of service level agreements in relational management of information technology outsourcing: an empirical study. *MIS Quarterly*, 119–145.
- Gordon, J., and Hammond, L. (2015). Identifying the appropriate indicators to measures the impact of credit unios and other co-operatives on their communities. In *Co-operatives for Sustainable Communities. Tools to Measure Co-operative Impact and Performance* (pp. 152–179).
- Government of Malaysia, 1985, The Fourth Malaysia Plan. <http://www.pmo.gov.my/dokumenattached/RMK/RM4.pdf> (accessed July 16, 2018)
- Granovetter, M. S. (1973). The Strength of Weak Ties. *The American Journal of Sociology*, 78(6), 1360–1380.
- Green, G. P., and Haines, A. (2015). *Asset building & community development*. Thousand Oaks, CA, USA, Sage Publications.
- Grootaert, Christiaan. (2001). *Does Social Capital Help the Poor? A Synthesis of Findings from the Local Level Institutions Studies in Bolivia, Burkina Faso, and Indonesia*. Local Level Institutions Working Paper 10. World Bank, Social Development Department, Washington D.C
- Guest, P. M. (2009). The impact of board size on firm performance: evidence from the UK. *The European Journal of Finance*, 15(4), 385–404.
- Gugler, K., Mueller, D. C., and Burcin Yurtoglu, B. (2003). The impact of corporate governance on investment returns in developed and developing countries. *The Economic Journal*, 113(491), F511–F539.
- Guzmán, I., and Arcas, N. (2008). The usefulness of accounting information in the measurement of technical efficiency in agricultural cooperatives. *Annals of Public and Cooperative Economics*, 79(1), 107–131.

- Guzmán, I., Arcas, N., Ghelfi, R., and Rivaroli, S. (2009). Technical efficiency in the fresh fruit and vegetable sector: a comparison study of Italian and Spanish firms. *Fruits*, 64(4), 243–252.
- Hafizah Hammad Ahmad Khan, Mahazril' Aini Yaacob, Hussin Abdullah, and Siti Hajar Abu Bakar Ah. (2016). Factors affecting performance of co-operatives in Malaysia. *International Journal of Productivity and Performance Management*, 65(5), 641–671.
- Hailu, G., Goddard, E. W., and Jeffrey, S. R. (2005). Measuring efficiency in fruit and vegetable marketing co-operatives with heterogeneous technologies in Canada. *American Agricultural Economics Association*.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., and Tatham, R. L. (2006). *Multivariate data analysis (Vol. 6)*. Upper Saddle River, NJ, USA Pearson Prentice Hall.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., and Tatham, R. L. (2010). *Multivariate Data Analysis: A Global Perspective*. Upper Saddle River, NJ, USA, Pearson.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., and Thiele, K. O. (2017). Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. *Journal of the Academy of Marketing Science*, 45(5), 616–632.
- Hair, J. F., Hult, G. T. M., Ringle, C., and Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM) (2nd ed.)*. Thousand Oaks, CA, USA, Sage publications.
- Hair, J. F., Ringle, C. M., and Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–151.
- Hair, J. F., Risher, J. J., Sarstedt, M., and Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.
- Hair, J. F., Sarstedt, M., Ringle, C. M., and Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40(3), 414–433.
- Hair, J., Hollingsworth, C. L., Randolph, A. B., and Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L., and Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM) An emerging tool in business research. *European Business Review*, 26(2), 106–121.

- Hakelius, K. (2018). Understanding the board of Swedish farmer cooperatives – Cases focusing on board composition and interaction patterns. *Journal of Co-Operative Organization and Management*, 6(2), 45–52.
- Hambrick, D. C., and Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193–206.
- Harris, A., and Fulton, M. (1996). *Comparative Financial Performance Analysis of Canadian Cooperatives, Investor-owned Firms, and Industry Norms*. University of Saskatchewan, Centre for the Study of Co-operatives. http://www.coop_studies.usask.ca. (accessed April 24, 2019)
- Harris, D., and Helfat, C. (1997). Specificity of CEO human capital and compensation. *Strategic Management Journal*, 18(11), 895–920.
- Harun, M., and Mahmood, R. (2012). The relationship between group cohesiveness and performance: An empirical study of cooperatives movement in Malaysia. *International Journal of Cooperative Studies*, 1(1), 15–20.
- Hayami, Y. (2009). Social capital, human capital and the community mechanism: Toward a conceptual framework for economists. *Journal of Development Studies*, 45(1), 96–123.
- Hayes, A. F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408–420.
- Haynes, K. T., and Hillman, A. (2010). The Effect of board capital and CEO power on strategic change. *Strategic Management Journal*, 31(11), 1145–1163.
- Haynes, S. N., Richard, D., and Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological Assessment*, 7(3), 238.
- Helmberger, P., and Hoos, S. (1962). Cooperative enterprise and organization theory. *Journal of Farm Economics*, 44(2), 275–290.
- Henseler, J., Ringle, C. M., and Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135.
- Henseler, J., and Sarstedt, M. (2013). Goodness-of-fit indices for partial least squares path modeling. *Computational Statistics*, 28(2), 565–580.

- Hernández-Espallardo, M., Arcas-Lario, N., and Marcos-Matás, G. (2013). Farmers' satisfaction and intention to continue membership in agricultural marketing co-operatives: neoclassical versus transaction cost considerations. *European Review of Agricultural Economics*, 40(2), 239–260.
- Hernández-Nicolás, C. M., Martín-Ugedo, J. F., and Mínguez-Vera, A. (2019). The effect of gender diversity on the board of Spanish agricultural cooperatives on returns and debt: An empirical analysis. *Agribusiness*, 35(4), 639–656.
- Hill, C. W. L., and Rothaermel, F. T. (2003). The performance of incumbent firms in the face of radical technological innovation. *Academy of Management Review*, 28(2), 257–274.
- Hillman, A. J., Cannella, A. A., and Paetzold, R. L. (2000). The resource dependence role of corporate directors: strategic adaptation of board composition in response to environmental change. *Journal of Management Studies*, 37(2), 235–256.
- Hillman, A. J., and Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management Review*, 28(3), 383–396.
- Hillman, A. J., Keim, G. D., and Luce, R. A. (2001). Board composition and stakeholder performance: Do stakeholder directors make a difference? *Business & Society*, 40(3), 295–314.
- Hillman, A. J., Withers, M. C., and Collins, B. J. (2009). Resource dependence theory: A review. *Journal of Management*, 35(6), 1404–1427.
- Hind, A. M. (1999). Cooperative performance—Is there a dilemma? *Journal of Cooperatives*, 30–43.
- Hinton, P. R., McMurray, I., and Brownlow, C. (2014). *SPSS explained*. New York, USA, Routledge.
- Hoe, S. L. (2008). Issues and Procedure in Adopting Structural Equation Modeling Technique. *Journal of Applied Quantitative Methods*, 3(1), 76–83.
- Hollnsteiner, M. R. (1976). People power: Community participation in the planning and implementation of human settlements. *Philippine Studies: Historical and Ethnographic Viewpoints*, 24(1), 5–36.
- Hotta, M. *Rural Enterprise, Development and Economic Diversification. Socio-Economic Issues in Coastal Fisheries Management, Regional Office for Asia and the Pacific (RAPA)*. Food and Agricultural Organization of the United Nations, Rome, Italy, 1994.

- Hotta, M., and Wang, L. T. (1985). *Fishermen Relocation Programme in Peninsular Malaysia*. Food and Agricultural Organization of the United Nations, Rome, Italy, 1994.
- Huang, Z., Fu, Y., Liang, Q., Song, Y., and Xu, X. (2013). The efficiency of agricultural marketing cooperatives in China's Zhejiang province. *Managerial and Decision Economics*, 34(3–5), 272–282.
- Huat, L. S. Relationship Between Human Capital And Firm Performance: A Study of Telecom Equipment Companies. Universiti Sains Malaysia, 2010.
- Huck, S. W. (2016). *Reading Statistics and Research* (6th ed.). Boston, USA, Pearson.
- Huse, M., Hoskisson, R., Zattoni, A., and Viganò, R. (2011). New perspectives on board research: Changing the research agenda. *Journal of Management and Governance*, 15(1), 5–28.
- Idris, N., and Abdullah, A. M. (2011). Evaluation of factors affecting agricultural cooperatives performance in Malaysia. In *Proceedings of the 2nd International Conference on Business and Economics, Holiday Villa Beach Resort and Spa, Langkawi, Kedah, March* (pp. 14–16).
- Idris, N., Arshad, F. M., Radam, A., and Ali, N. A. (2013). Determining The Elements in Supply Chain Model of The Malaysian Agricultural Co-operatives. *Malaysian Journal of Co-operative Studies*, 9, 1–14.
- Intan Waheedah Othman, Maslinawati Mohamad, and Abdullah Azizah. (2013). Cooperative movements in Malaysia: The issue of governance. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 7(6), 398–402.
- International Co-operative Alliance. *Blueprint for a Co-operative Decade*. International Co-operative Alliance. [https://ica.coop/sites/default/files/media_items/ICA Blueprint - Final version issued 7 Feb 13.pdf](https://ica.coop/sites/default/files/media_items/ICA%20Blueprint%20-%20Final%20version%20issued%207%20Feb%2013.pdf) (accessed October 18, 2018).
- International Co-operative Alliance. (2016). *Sustainability Reporting for Co-operatives: A Guidebook*. <https://www.ica.coop/en/media/library/sustainability-reporting-cooperatives-guidebook>. (accessed October 18, 2018).
- Iqtidar, A. S. (2012). Participatory Approach to Development in Pakistan. *Journal of Economic and Social Studies*, 2(1), 111–142.
- Islam, M. R. (2017). Non-governmental organizations and community development in Bangladesh. *International Social Work*, 60(2), 479–493.

- Ismail, A. M., Ahmadi, S. M., Yatim, N., and Ismail, P. M. (2020). The impact of board characteristics on co-operative reputation from the lense of resource-based view theory (RBVT). *International Journal of Financial Research*, 11(3), 43–61.
- Janius, J. The Malaysian Co-operative Movement: An Empirical Analysis. University of Sheffield, 2007
- Jarvis, C. B., MacKenzie, S. B., and Podsakoff, P. M. (2003). A critical review of construct indicators and measurement model misspecification in marketing and consumer research. *Journal of Consumer Research*, 30(2), 199–218.
- Johnson, J. L., Daily, C. M., and Ellstrand, A. E. (1996). Boards of directors: A review and research agenda. *Journal of Management*, 22(3), 409–438.
- Johnson, S. G., Schnatterly, K., and Hill, A. D. (2013). Board composition beyond independence: social capital, human capital, and demographics. *Journal of Management*.
- Johnston, M. (1982). The labyrinth of community participation: Experience in Indonesia. *Community Development Journal*, 17(3), 202–207.
- Judge, W. Q., and Zeithaml, C. P. (1992, October). Institutional and strategic choice perspectives on board involvement in the strategic decision process. *Academy of Management Journal*. *Academy of Management*.
- Jussila, I., Goel, S., and Tuominen, P. (2012). Governance of co-operative organizations: a social exchange perspective. *Business and Management Research*, 1(2).
- Kalogeras, N., Baourakis, G., Zopounidis, C., and Van Dijk, G. (2005). Evaluating the financial performance of agri-food firms: A multicriteria decision-aid approach. *Journal of Food Engineering*, 70(3), 365–371.
- Kalogeras, N., Pennings, J. M. E., Benos, T., and Doumpos, M. (2013). Which cooperative ownership model performs better? a financial-decision aid approach. *Agribusiness*, 29(1), 80–95.
- Kalshoven, G. (1989). The Institutional Approach to Irrigated Rice Farming in Malaysia. Wageningen: Afd. Sociale Wetenschappen Landbouwhogeschool
- Kalshoven, G., Daane, J. R. V., Fredericks, L. J., van Ommeren, F. A. J. van de S., and Van Tilburg, A. (1984). *Paddy Farmers, Irrigation and Agricultural Services in Malaysia: A Case Study in the Kemubu Scheme*. Wageningen: Afd. Sociale Wetenschappen Landbouwhogeschool.

- Kasabov, E. (2016). Investigating difficulties and failure in early-stage rural cooperatives through a social capital lens. *European Urban and Regional Studies*, 23(4), 895–916.
- Kaur, I. (2006). Performance measurement: An evaluation of cooperative performance in Malaysia. *Malaysian Journal of Co-Operative Management*, 2, 14–28.
- Keeling Bond, J. (2009). Cooperative financial performance and board of director characteristics: A quantitative investigation. *Journal of Cooperatives*, 22, 20–35.
- Khanna, P., Jones, C. D., and Boivie, S. (2014). Director human capital, information processing demands, and board effectiveness. *Journal of Management*, 40(2), 557–585.
- Kieser, M., and Wassmer, G. (1996). On the use of the upper confidence limit for the variance from a pilot sample for sample size determination. *Biometrical Journal*, 38(8), 941–949.
- Kim, N., and Kim, E. (2015). Board capital and exploration: from a resource provisional perspective. *Management Decision*, 53(9), 2156–2174.
- Kim, Y. (2005). Board network characteristics and firm performance in Korea. *corporate governance: An International Review*, 13(6), 800–808.
- Kim, Y., and Cannella, A. A. (2007). Social capital among corporate upper echelons and its impacts on executive promotion in Korea. *Journal of World Business*, 43(1), 85–96.
- Kim, Y., and Cannella, A. A. (2008). Toward a social capital theory of director selection. *Corporate Governance: An International Review*, 16(4), 282–293.
- Kirzner, I. M. (1997). Entrepreneurial discovery and the competitive market process: An Austrian approach. *Journal of Economic Literature*, 35(1), 60–85.
- Kistruck, G. A Test of Moderated Mediation Between Board Size and Financial Performance in the Nonprofit Sector, In *Proceedings of the Annual Conference of the Administrative Science Association of Canada, Critical Accounting and Contemporary Theory Division*, Banff, Alberta, Canada, June 3-6, 2006.
- Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling*. New York, USA, The Guilford Press.
- Kock, N., and Lynn, G. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems*, 13(7).

- Kor, Y. Y., and Sundaramurthy, C. (2009). Experience-based human capital and social capital of outside directors. *Journal of Management*, 35(4), 981–1006.
- KPLB. (2018). KPLB Fact. <http://www.rurallink.gov.my/en/corporate-info/profile/kklw-fact/> (accessed July 1, 2018)
- Kusuma, I. C., Nur Afif, M., Gunawan, R., Mukmin, M. N., and Humaira, M. A. (2019). Cooperative success based on entrepreneurship, capital, accounting knowledge and participation members. *International Journal of Scientific and Technology Research*, 8(10), 1120–1123.
- Kwan, A. Y.-H. (1980). Rural development in Malaysia-issues and problems confronting MADA, FELDA and RISDA. *Asian Journal of Social Science*, 8(1), 64–86.
- Kyriakopoulos, K., Meulenbergh, M., and Nilsson, J. (2004). The impact of cooperative structure and firm culture on market orientation and performance. *Agribusiness*, 20(4), 379–396.
- Laah, E. D., and O Yusuf, D. R. (2014). Community Participation in sustainable rural infrastructural development in Riyom Area, Plateau State of Nigeria. *Journal of Economics and Sustainable Development*, 5(4), 49–57.
- Lawshe, C. H. (1975). A Quantitative Approach to Content Validity. *Personnel Psychology*, 28(4), 563–575.
- Leana, C. R., and Pil, F. K. (2006). Social capital and organizational performance: evidence from urban public schools. *Organization Science*, 17(3), 353–366.
- Lee, J.-H., Choi, C., and Kim, J. M. (2012). Outside directors' social capital and firm performance: A complex network approach. *Social Behavior and Personality*, 40(8), 1319–1331.
- Lee, J.-H., Jang, Mi., and Choi, C. (2016). Social capital of corporate boards: effects on firm growth. *Social Behavior & Personality*, 44(3), 453–462.
- Léon, Y. (2005). Rural development in Europe: A research frontier for agricultural economists. *European Review of Agricultural Economics*, 32(3), 301–317.
- Lester, R. H., Hillman, A., Zardkoohi, A., and Cannella, A. A. (2008). Former government officials as outside directors: The role of human and social capital. *Academy of Management Journal*, 51(5), 999–1–13. R
- Leviten-Reid, C., and Campbell, R. (2016). Volunteer roles and the benefits of volunteering: An examination of nonprofit housing cooperatives. *Community Development*, 47(4), 464–480.

- Liang, Q., Huang, Z., Lu, H., and Wang, X. (2015). Social Capital , member participation , and cooperative performance: Evidence from China ' s Zhejiang. *International Food and Agribusiness Management Review*, 18(1), 49–78.
- Littlepage, G., Robison, W., and Reddington, K. (1997). Effects of task experience and group experience on group performance, member ability, and recognition of expertise. *Organizational Behavior and Human Decision Processes*, 69(2), 133–147.
- Liu, Y., Wu, A. D., and Zumbo, B. D. (2010). The impact of outliers on Cronbach's coefficient alpha estimate of reliability: Ordinal/rating scale item responses. *Educational and Psychological Measurement*, 70(1), 5–21.
- Liu, Y., and Zumbo, B. D. (2007). The impact of outliers on Cronbach's coefficient alpha estimate of reliability: Visual analogue scales. *Educational and Psychological Measurement*, 67(4), 620–634.
- Lluch, D. B. L., Gomis, F. J. D. C., and Jiménez, F. V. (2006). A management model for the evaluation of co-operative success with special reference to member objective setting and satisfaction. *International Journal of Co-Operative Management*, 3(1), 44.
- Lynn, M. R. (1986). Determination and quantification of content validity. *Nursing Research*.
- Majee, W., and Hoyt, A. (2009). Building Community Trust Through Cooperatives: A Case Study of a Worker-Owned Homecare Cooperative. *Journal of Community Practice*, 17(4), 444–463.
- Majee, W., and Hoyt, A. (2011). Cooperatives and Community Development: A Perspective on the Use of Cooperatives in Development. *Journal of Community Practice*, 19(1), 48–61.
- Malaysia Co-operative Societies Commission. (2011). National Co-operative Policy 2011-2020. https://www.skm.gov.my/images/images/Dasar-Koperasi-Negara-2011-2020-BI/NCP_versi-penuh.pdf (accessed July 30, 2018)
- Malhotra, N. K. (2013). *Basic Marketing Research: Pearson New International Edition: Leeds University Business School*. Leeds, England, Pearson Higher Ed.
- Marie, A. A., Ibrahim, M. E., and Al Nasser, A. D. (2014). Effects of financial and non-financial performance measures on customers' perceptions of service quality at Islamic banks in UAE. *International Journal of Economics and Finance*, 6(10).

- Matoussi, H., and Gharbi, I. (2011). Board independence and corporate fraud: The case of Tunisian firms. *Politics and Economic Development*.
- Mayo, E. (2011). Co-operative performance. *Sustainability Accounting, Management and Policy Journal*, 2(1), 158–164.
- McCrae, R. R., Kurtz, J. E., Yamagata, S., and Terracciano, A. (2011). Internal consistency, retest reliability, and their implications for personality scale validity. *Personality and Social Psychology Review*, 15(1), 28–50.
- Mckee, G. (2008). The Financial Performance of North Dakota Grain Marketing and Farm Supply Cooperatives. *Journal of Cooperatives* (Vol. 21).
- McPherson, M., Smith-Lovin, L., and Cook, J. M. (2001). Birds of a Feather: Homophily in Social Networks. *Annual Review of Sociology*, 27(1), 415–444.
- Melkumov, D., and Khoreva, V. (2015). The effect of board capital and conflict on the tasks of the board of directors. *International Studies of Management and Organization*, 45(1), 60–79.
- Michener, V. J. (1998). The participatory approach: Contradiction and co-option in Burkina Faso. *World Development*, 26(12), 2105–2118.
- Milbourne, P. (2012). Growing old in rural places. *Journal of Rural Studies*, 4(28), 315–317.
- Milliken, F. J., and Martins, L. L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *Academy of Management Review*, 21(2), 402–433.
- Minichilli, A., and Hansen, C. (2007). The board advisory tasks in small firms and the event of crises. *Journal of Management & Governance*, 11(1), 5–22.
- Ministry of Rural Development. (2018). Garis Panduan Pelaksanaan Program Desa Lestari. <https://www.rurallink.gov.my/rakyat/program/program-desa-lestari/> (accessed November 5, 2019)
- Ministry of Rural Development. (2019a). Background of Rural Development. <http://www.rurallink.gov.my/en/background-of-rural-development/> (accessed October 10, 2019)
- Ministry of Rural Development. (2019b). Gerakan Daya Wawasan. <https://www.rurallink.gov.my/rakyat/program/gerakan-desa-wawasan/> (accessed November 5, 2019)
- Mohd Arshar, F., and Shamsudin, M. N. (1997). Rural Development Model in Malaysia. *Management*, 1–23.

- Mohd Khairuddin Hashim, and Dzulhilmi Ahmad Fawzi. (2015). Issues, Scope and Focus of Research on Cooperatives in Malaysia. *Journal of Education and Social Sciences*, 2(October), 121–125.
- Mohd Koharuddin Mohd Balwi. (2005). Pembangunan Luar Bandar Di Malaysia: Gerakan Desa Wawasan (GDW) Sebagai Mekanisme Pembangunan Masyarakat Luar Bandar. *Jurnal Teknologi*, 42, 31–48.
- Moher, D., Liberati, A., Tetzlaff, J., and Altman, D. G. (2010). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *International Journal of Surgery*, 8(5), 336–341.
- Mojo, D., Fischer, C., and Degefa, T. (2015). Social and environmental impacts of agricultural cooperatives: Evidence from Ethiopia. *International Journal of Sustainable Development and World Ecology*, 22(5), 388–400.
- Mokhzani Abdul Rahim. (2006). *Credit in a Malay Peasant Economy*. Kuala Lumpur, Malaysia, Arus Intelek Sdn Bhd.
- Mondal, A., and Ghosh, S. K. (2012). Intellectual capital and financial performance of Indian banks. *Journal of Intellectual Capital*.
- Morissette, R. *Toward a Theory of Information Choices in Organisations, An Integrative Approach*. University of Waterloo, 1997.
- Moser, C. O. N. (1989). Community participation in urban projects in the Third World. *Progress in Planning*, 32, 71–133.
- Mulgan, G. (2010). Measuring Social Value. *Stanford Social Innovation Review*, 8(3), 38–43.
- Musa, D., Ghani, A. A., and Ahmad, S. (2014). Linking entrepreneurial orientation and business performance: The examination toward performance of cooperatives firms in northern region of Peninsular Malaysia. *International Journal of Business and Technopreneurship*, 4(2).
- Nahapiet, J., and Ghoshal, S. (1998). Social Capital, Intellectual Capital, and the Organizational Advantage. *Academy of Management Review*, 23(2), 242–266.
- Naviaux, R. K., and McGowan, K. A. (2000). Social capital: Implications for Development Theory, Research, and Policy. *World Bank Research Observer*, 15(2), 225–249.
- Nemoto, T., and Beglar, D. (2014). Likert-scale questionnaires. In proceeding of *JALT 2013 Conference* (pp. 1–8).
- Neuman, W. L. (2014). *Social Research Methods: Qualitative and Quantitative Approaches*. Pearson Education Limited (Vol. 8). Edinburgh, England, Pearson.

- Ng, T. W. H., and Feldman, D. C. (2010). The effects of organizational embeddedness on development of social capital and human capital. *Journal of Applied Psychology*, 95(4), 696.
- Ngah, I. (2010a). *CIPD Monograph Rural Development In Malaysia Monograph No.4*. Faculty of Built Environment, Universiti Teknologi Malaysia.
- Ngah, I. (2010b). *Rural Development In Malaysia. Centre for Innovative Planning and Development Monograph No.4*. Faculty of Built Environment, Universiti Teknologi Malaysia.
- Nguyen Long, L. A. (2016). Does Social Capital Affect Immigrant Political Participation? Lessons from a Small-N Study of Migrant Political Participation in Rome. *Journal of International Migration and Integration*, 17(3), 819–837.
- Nguyen, T., Nguyen, A., Locke, S., and Reddy, K. (2017). Does the human capital of board directors add value to firms? Evidence from an Asian market. *Cogent Economics and Finance*, 5(1).
- Nicholson, G. J. (2004). A framework for diagnosing board effectiveness. *corporate governance. An International Review*, 12(4), 442–460.
- Nikkhah, H. A., and Redzuan, M. (2009). Participation as a Medium of Empowerment in Community Development. *European Journal of Social Sciences*, 11(1), 170–176.
- Nilsson, J., Svendsen, G. L. H., and Svendsen, G. T. (2012). Are Large and Complex Agricultural Cooperatives Losing Their Social Capital? *Agribusiness*, 28(2), 187–204.
- Nitzl, C. (2016). The use of partial least squares structural equation modelling (PLS-SEM) in management accounting research: Directions for future theory development. *Journal of Accounting Literature*, 37, 19–35.
- Nooraslinda Abdul Aris, Marziana Madah Marzuki, Rohana Othman, Safawi Abdul Rahman, and Nor Ashikin Hj Ismai. (2015). Designing indicators for cooperative sustainability: the Malaysian perspective. *Social Responsibility Journal*.
- Noordin, N., Rajaratnam, S. D., Anuar Said, M. S., Juhan, R., and Mohd Haniff, F. (2011). Attributes and Perceived Success Factors of Performing of Cooperatives in Malaysia. *Malaysian Journal of Co-Operative Management*, 7, 37–67.
- Notta, O., and Vlachvei, A. (2007). Performance of cooperatives and investor-owned firms: the case of the Greek Dairy Industry. In *Vertical markets and cooperative hierarchies* (pp. 275–285). Springer.

- Nurhazani, M. S., Azlan, Z. A., and Kamarul Baharin, A. M. (2016). Investigating board of directors' perceptions on corporate governance practice in cooperatives. *International Journal of Contemporary Applied Sciences*, 3(1), 265–289.
- Oakley, P. (1991). The concept of participation in development. *Landscape and Urban Planning*, 20(1–3), 115–122.
- Oakley, P., and Marsden, D. (1984). *Approaches to participation in rural development*. Geneva, International labour office.
- Ogbechie, C., Koufopoulos, D. N., and Argyropoulou, M. (2009). Board characteristics and involvement in strategic decision making: The Nigerian perspective. *Management Research News*, 32(2), 169–184.
- Okubo, D. (2009). 6 Community visioning and strategic planning. *An Introduction to Community Development*, 77–103.
- Othman, A. Essays on the Cooperatives' Performance in Malaysia. Universiti Malaya, 2014.
- Othman, A., and Kari, F. (2008). Enhancing Co-operative Movement to Achieve Malaysia's Development Goals. In *ICA Research Conference* (pp. 1–39).
- Othman, A., Kari, F., Jani, R., and Hamdan, R. (2012). Factors influencing cooperative membership and share increment: an application of the logistic regression analysis in the Malaysian cooperatives. *World Review of Business Research*, 2(5), 24–35.
- Othman, A., Mansor, N., and Kari, F. (2014). Assessing the performance of co-operatives in Malaysia: an analysis of co-operative groups using a data envelopment analysis approach. *Asia Pacific Business Review*, 20(3), 484–505.
- Othman, R., Arshad, R., Aris, N. A., Maznah, S., and Arif, M. (2015). Organizational resources and sustained competitive advantage of cooperative organizations in Malaysia. *Procedia-Social and Behavioral Sciences*, 170, 120–127.
- Pakeh, A. (2016). Competence relationship with organizational excellence JKKK in Kuala Nerus, Terengganu. In *1st International Conference on Social and Political Development (ICOSOP 2016)*. Atlantis Press.
- Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS*. London, England, Routledge.
- Panda, B. (2007). Top Down or Bottom Up? A Study of Grassroots NGOs' Approach. *Journal of Health Management*, 9(2), 257–273.

- Parliament, C., Lennan, Z., and Fulton, J. (1990). Performance of Cooperatives and investor-owned firms in the dairy industry. *Journal of Agricultural Cooperation*, 4(June), 1–16.
- Parnell, R., and Patsarika, M. (2011). Young people's participation in school design: Exploring diversity and power in a UK governmental policy case-study. *Children's Geographies*, 9(3–4), 457–475.
- Pearce, J. A., and Zahra, S. A. (1992). Board composition from a strategic contingency perspective. *Journal of Management Studies*, 29(4), 411–438.
- Pérez-Calero, L., Villegas, M. del M., and Barroso, C. (2016). A framework for board capital. *Corporate Governance (Bingley)*, 16(3), 452–475.
- Petrovic, J. (2008, October 17). Unlocking the role of a board director: A review of the literature. *Management Decision*.
- Pfeffer, J. (1983). Organizational Demography. *Research in Organizational Behavior*.
- Pfeffer, J., and Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. Stanford, CA, USA, Harper & Row.
- Phillips, R., and Pittman, R. H. (2008). *An Introduction to Community Development*. Routledge (Vol. 39). New York, USA, Taylor & Francis.
- Preacher, K. J., and Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36(4), 717–731.
- Preacher, K. J., and Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891.
- Premchander, S., Prameela, V., and Polman, W. (2004). Promoting rural women's cooperative businesses in Thailand. *RAP Publication (FAO)*.
- Prime Minister's Department. (2013). Government Transformation Programme 2.0: Catalysing Transformation For A Brighter Future. http://gtp.pemandu.gov.my/gtp/upload/GTP2_ENG.pdf (accessed November 5, 2019)
- Psacharopoulos, G. (1985). Returns to education: A further international update and implications. *The Journal of Human Resources*, XX(4), 584–604.
- Pugliese, A., and Wenstop, P. Z. (2007). Board members' contribution to strategic decision-making in small firms. *Journal of Management & Governance*, 11(4), 383–404.

- Ramayah, T., Cheah, J., Chuah, F., Ting, H., and Memon, M. A. (2018). Partial least squares structural equation modeling (PLS-SEM) using smartPLS 3.0. In *An Updated Guide and Practical Guide to Statistical Analysis*. Malaysia, Pearson.
- Ramón-Llorens, M. C., García-Meca, E., and Pucheta-Martínez, M. C. (2018). The role of human and social board capital in driving CSR reporting. *Long Range Planning*.
- Raniga, T., and Simpson, B. (2002). Community participation: Rhetoric or reality? *A Professional Journal for the Social Worker*, 38(2), 182–192.
- Rasiah, R., Mansor, N., and Chandran, V. G. R. (2015). Royal Professor Ungku Abdul Aziz: A key pillar in Malaysia's Development. *Institutions and Economies*, 1–19.
- Rauch, A., and Rijsdijk, S. A. (2013). The Effects of general and specific human capital on long-term growth and failure of newly founded businesses. *Entrepreneurship: Theory and Practice*, 37(4), 923–941.
- Reeb, D. M., and Zhao, W. (2009). Director capital and corporate disclosure quality. *Journal of Accounting and Public Policy*, 32(4), 191–212.
- Reed, D. (2002). Corporate governance reforms in developing countries. *Journal of Business Ethics*, 37(3), 223–247.
- Reid, J. N. (2000). *Community participation: How people power brings Sustainable Benefits to Communities*.
- Reitz, H. J. (2011). The external control of organizations: a resource dependence perspective. *Academy of Management Review*, 4(2), 309–310.
- Richard, P. J., Devinney, T. M., Yip, G. S., and Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of Management*, 35(3), 718–804.
- Richter, N. F., Cepeda-Carrión, G., Roldán Salgueiro, J. L., and Ringle, C. M. (2016). European management research using partial least squares structural equation modeling (PLS-SEM). *European Management Journal*, 34 (6), 589-597.
- Rilwanu, A. Participation, Social Capital and Empowerment Among Members of Kankara Local Community Fadama User Groups in Katsina State, Nigeria. Universiti Putra Malaysia, 2014.
- Robbins, S. P., and Coulter, M. K. (2005). *Management*. Upper Saddle River, NJ, USA, Pearson Prentice Hall.

- Robert, C. (1992). *Rural appraisal: rapid, relaxed and participatory*. Institute of Development Studies.
- Robinson, J. P., Shaver, P. R., and Wrightsman, L. S. (1991). *Criteria for Scale Selection and Evaluation*. *Journal of Applied Psychology*.
- Rohana Othman, Roslani Embi, Nooraslinda Abdul Aris, Siti Maznah Mohd Arif, Huang Ching Choo, and Norashikin Ismail. (2016). Board governance and performance: An exploratory study of Malaysian cooperative organizations. *Journal of Southeast Asian Research*, 2016(2016), 1–12.
- Romaizah Abd Kadir, Khairuddin Idris, and Zoharah Omar. (2016). Social And individual factors that influence board participation behaviour in the co-operative governance. *Journal Studia Universitatis Babes-Bolyai Negotia*, 4(7).
- Royer, R. S., Wissman, R. A., and Kraenzle, C. A. (1990). *Farmer Cooperatives' Financial Profile* (Vol. 91).
- Rubio, D. M., Berg-Weger, M., Tebb, S. S., Lee, E. S., and Rauch, S. (2003). Objectifying content validity: Conducting a content validity study in social work research. *Social Work Research*, 27(2), 94–104.
- Ruef, M., Aldrich, H. E., and Carter, N. M. (2003). The Structure of Founding teams: Homophily, strong ties, and isolation among U.S. entrepreneurs. *American Sociological Review*, 68(2), 195.
- Ruigrok, W., Peck, S. I., and Keller, H. (2006). Board characteristics and involvement in strategic decision making: Evidence from Swiss companies. *Journal of Management Studies*, 43(5), 1201–1226.
- Saleh, N. M., and Hamzah, N. (2017). Co-operative governance and the public interest: between control and autonomy. *Jurnal Pengurusan (UKM Journal of Management)*, 51.
- Sallehuddin, A., Azizi Shamsudin, A. M. A. S., Jais, M., Mustafa, M. A., Masuod, M. S., Hasmanto, N., and Ismail, H. (2018). Board governance attributes and organizational characteristics of mosque co-operatives in Malaysia. *International Journal of Engineering & Technology*, 7(2.29), 321–325.
- Sangoseni, O., Hellman, M., and Hill, C. (2013). Development and validation of a questionnaire to assess the effect of online learning on behaviors, attitudes, and clinical practices of physical therapists in the united states regarding evidenced-based clinical practice. *Internet Journal of Allied Health Sciences and Practice*, 11(2), 7.
- Sarstedt, M., Ringle, C. M., and Hair, J. F. (2017). Treating unobserved heterogeneity in PLS-SEM: A multi-method approach. In *Partial Least Squares Path Modeling* (pp. 197–217). Springer.

- Sarstedt, M., Ringle, C. M., Smith, D., Reams, R., and Hair, J. F. (2014). Partial least squares structural equation modeling (PLS-SEM): A useful tool for family business researchers. *Journal of Family Business Strategy*, 5(1), 105–115.
- Sato, Y. (2013). Social Capital. *Sociopedia.Isa*, 174–180.
- Saunders, M., Lewis, P., and Thornhill, A. (2019). *Research Methods for Business Students (8th edition)*. Pearson Education.
- Schultz, T. W. (1961). Investment in Human Capital. *American Economic Review*, 51.
- Sekaran, U., and Bougie, R. (2016). *Research methods for business: A skill building approach*. West Sussex, United Kingdom, John Wiley & Sons.
- Sexton, R. J., Wilson, B. M., and Wann, J. J. (1989). Some tests of the economic theory of cooperatives: Methodology and application to cotton ginning. *Western Journal of Agricultural Economics*, 14(1836-2016–150709), 56–66.
- Shadish, W. R., and Sweeney, R. B. (1991). Mediators and moderators in meta-analysis: There's a reason we don't let dodo birds tell us which psychotherapies should have prizes. *Journal of Consulting and Clinical Psychology*, 59(6), 883.
- Shaffer, R., Deller, S., and Marcouiller, D. (2006). Rethinking community economic development. *Economic Development Quarterly*, 20(1), 59–74.
- Shaffril, H. A. M., Krauss, S. E., and Samsuddin, S. F. (2018, December). A systematic review on Asian's farmers' adaptation practices towards climate change. *Science of the Total Environment*.
- Shamsuddin, Z., Ghafar Ismail, A., Mahmood, S., and Abdullah, F. (2017). Determinants of agricultural cooperative performance using financial ratio. *International Journal of Business and Technopreneurship*, 7(3), 385–396.
- Shamsuddin, Z., Mahmood, S., Liza Ghazali, P., Salleh, F., and Amalina Md Nawi, F. (2018). Indicators for Cooperative performance measurement. *International Journal of Academic Research in Business and Social Sciences*, 8(12), 577–585.
- Shamsul, A. B. (1988). Development and change in rural Malaysia: the role of the Village Development Committee. *Southeast Asian Studies (Kyoto)*, 26(2), 218–228.
- Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science*, 11(4), 448–469.

- Sheikh, M. J. Farmers' Participation, Social Capital, and Benefits in Water Management in Sindh Province of Pakistan. Universiti Putra Malaysia, 2015.
- Shepherd, D. A., and Wiklund, J. (2006). Successes and failures at research on business failure and learning from it. *Foundations and Trends in Entrepreneurship*, 2(5).
- Shrout, P. E., and Bolger, N. (2002). Mediation in experimental and nonexperimental studies: new procedures and recommendations. *Psychological Methods*, 7(4), 422.
- Siciliano, J. I. (2005). Board involvement in strategy and organisational performance. *Journal of General Management*, 30(4), 1–10.
- Simkhada, N. R. (2017). Indicators for Measuring performance of financial cooperatives in Nepal. *Journal of Business and Management Research*, 2(1–2), 66–86.
- Singh, S., Coelli, T., and Fleming, E. (2001). Performance of dairy plants in the cooperative and private sectors in India. *Annals of Public and Cooperative Economics*, 72(4), 453–479.
- Smith, D. (2003). Five principles for research ethics. *Monitor on Psychology*, 34(1), 56.
- Smith, L. T., Tuck, E., and Yang, K. W. (2018). *Indigenous and decolonizing studies in education: Mapping the long view*. USA, Routledge.
- Soboh, R., Lansink, A. O., Giesen, G., and van Dijk, G. (2009). Performance measurement of the agricultural marketing cooperatives: The gap between theory and practice. *Review of Agricultural Economics*.
- Soboh, R., Oude Lansink, A., and van Dijk, G. (2011). Distinguishing dairy cooperatives from investor-owned firms in Europe using financial indicators. *Agribusiness*, 27(1), 34–46.
- Soboh, R., Oude Lansink, A., and Van Dijk, G. (2012). Efficiency of cooperatives and investor owned firms revisited. *Journal of Agricultural Economics*, 63(1), 142–157.
- Solange Charas. (2015). Improving corporate performance by enhancing team dynamics at the board level. *International Journal of Disclosure and Governance*, 12(2), 107–131.
- Spear, R., Cornforth, C., and Aiken, M. (2009). The governance challenges of social enterprises: evidence from a UK empirical study. *Annals of Public and Cooperative Economics*, 80(2), 247–273.

- Stevenson, W. B., and Radin, R. F. (2009). Social capital and social influence on the board of directors. *Journal of Management Studies*, 46(1), 16–44.
- Stone, W., and Hughes, J. (2002). Empirical meaning and measurement validity. *Australian Institute of Family Studies*.
- Subramaniam, M., and Youndt, M. A. (2005). The influence of intellectual capital on the types of innovative capabilities. *Academy of Management Journal*, 48(3), 450–463.
- Suhaimi Mhd Sarif, and Yusof Ismail. (2010). Managerial Roles and the Training of Malaysian Co-operatives' Managers. *Malaysian Journal of Co-Operative Studies*, (6), 1–24.
- Sun, Y., Fang, Y., Lim, K. H., and Straub, D. (2012). User satisfaction with information technology service delivery: A social capital perspective. *Information Systems Research*, 23(4), 1195–1211.
- Suruhanjaya Koperasi Malaysia. Akta Koperasi 1993 (Fi) (2010). http://www.kpf.my/downloads/index.php?file=Peraturan_Koperasi.pdf (accessed September 7, 2019).
- Suruhanjaya Koperasi Malaysia. (2017). *Top 100 CO-operatives in Malaysia*. <http://www.skm.gov.my/index.php/my/component/flippingbook/book/12?layout=edit> (accessed September 2, 2019).
- Suruhanjaya Koperasi Malaysia. (2019). *Top 100 Co-operatives in Malaysia 2019*. <http://www.skm.gov.my/index.php/my/component/flippingbook/book/12?layout=edit> (accessed September 2, 2019).
- Sushila Devi Rajaratnam, Noordin, N., Said, M. S. A., Juhan, R., and Hanif, F. M. (2010). Success Factors of Cooperatives In Malaysia: An Exploratory Investigation. *Malaysian Journal of Co-Operative Management*, 5(1), 1–24.
- Sushila Devi Rajaratnam, Nurizah Nordin, Mohd Shahron Anuar Said, Rafedah Juhan, and Farahaini Mohd Hanif. (2009). Factors Influencing Performance of Co-operatives in Malaysia: A Tentative Framework. *Malaysian Journal of Co-Operative Management*, 5, 43–63.
- Tabachnick, B. G., and Fidell, L. S. (2013). *Using Multivariate Statistics* (6th ed.). Boston, USA, Pearson.
- Talib, A. Bin, Jusoh, H., and Ibrahim, Y. (2009). Penyertaan Komuniti Luar Bandar Dalam Bidang Keusahwanan Melalui Program Gerakan Daya Wawasan. In *Prosiding Perkem IV, Jilid 2 (2009) 369-384* (Vol. 2, pp. 369–384).

- Tanriverdi, H., Konana, P., and Ge, L. (2007). The choice of sourcing mechanisms for business processes. *Information Systems Research*, 18(3), 280–299.
- Tenzin, G., and Natsuda, K. (2016). Social capital, household income, and community development in Bhutan: a case study of a dairy cooperative. *Development in Practice*, 26(4), 467–480.
- Theuvsen, L., and Franz, A. (2007). The role and success factors of livestock trading cooperatives: lessons from German pork production. *International Food and Agribusiness Management Review*, 10 (1030-2016–82515), 90–112.
- Thomas, H., and Logan, C. (1982). Mondragon. *An economic analysis*. London, Routledge.
- Thompson, C. B. (2009). Descriptive data analysis. *Air Medical Journal*, 28(2), 56–59.
- Thompson, C., Schwartz, R., Davis, E., and Panacek, E. A. (1996). Basics of research (part 6): Quantitative data analysis. *Air Medical Journal*, 15(2), 73.
- Tian, J., Halebian, J., and Rajagopalan, N. (2011). The Effect of Board Human and Social Capital on Investor Reactions to New CEO Selection. *Strategic Management Journal*, 32(7), 731–747.
- Tohar, S. N. M., Deuraseh, N., Rahman, A. A., and Muhammad, Z. (2011). Acceptance of Kuala Lumpur Malay's residents towards Rukyah (incantation). *Pertanika Journal of Social Sciences & Humanities*, 19(2), 305–317.
- Tojib, D., and Sugianto, L.-F. (2006). Content validity of instruments in IS research. *Journal of Information Technology Theory and Application*, 8(3), 31–56.
- Tony Liston Hutagalung. *Effects of Social Capital on the Performance of a Church Based Cooperative In Pematangsiantar City, North Sumatra, Indonesia*. University of the Philippines, 2016.
- Trechter, D. D. (1996). Impact of diversification on agricultural cooperatives in Wisconsin. *Agribusiness*, 12(4), 385–394.
- Trochim, W. M. K., and Donnelly, J. P. (2006). *Research Methods Knowledge Base* (3rd ed.). Mason, Ohio, Atomic Dog Publishing Cincinnati.
- Unger, J. M., Rauch, A., Frese, M., and Rosenbusch, N. (2011). Human capital and entrepreneurial success: A meta-analytical review. *Journal of Business Venturing*, 26(3), 341–358.

- Ungku Abdul Aziz, U. A. H. (1966). Cooperation and National Development. *In Malaysian Trades Union Congress Asian Trade Union Seminar on Trade Unionism and Co-operation, August 1966.*
- Ungku Abdul Aziz, U. A. H. (1967). Cooperation and National Development. *Kajian Ekonomi Malaysia*, 4(1), 20–29.
- Urbach, N., and Ahlemann, F. (2010). Structural equation modeling in information systems research using partial least squares. *Journal of Information Technology Theory and Application*, 11(2), 5–40.
- Valentinov, V., and Iliopoulos, C. (2013). Economic theories of nonprofits and agricultural cooperatives compared: New perspectives for nonprofit scholars. *Nonprofit and Voluntary Sector Quarterly*, 42(1), 109–126.
- Verbeeten, F. H. M. (2005). *New Performance Measures: Determinants of Their Use and Their Impact on Performance*. ERIM Report Series Research in Management.
- Visser, T. (1997). The role of fishery co-operatives in coastal fisheries management. In *Proceedings of the Regional Workshop on Coastal Fisheries Management Based on Southeast Asian Experiences, Chiang Mai, Thailand, 19-22 November 1996* (pp. 279–288). Training Department, Southeast Asian Fisheries Development Center.
- Vourvachaki, E., Slobodyan, S., and Jerbashian, V. (2015). specific and general human capital in an endogenous growth model. *Eastern European Economics*, 53(3), 167–204.
- Wan Yusoff, W. F. Characteristics of Boards of Directors and Board Effectiveness: A Study of Malaysian Public Listed Companies. Victoria University, 2010.
- Wathanga, J. (2016). *The Effect of Corporate Governance on the Organizational Performance of Dairy Co-Operatives in Kenya*. United State International University - Africa.
- Wells, R. J. G. (1981). An appraisal of agro-based cooperatives in Peninsular Malaysia. *Public Administration and Development*, 1(2), 165–176.
- Westphal, J. D. (1999). Collaboration in the Boardroom: Behavioral and Performance Consequences of CEO-Board Social Ties. *Source: The Academy of Management Journal*, 42(1), 7–24.
- Westphal, J. D., and Fredrickson, J. W. (2001). Who directs strategic change? Director experience, the selection of new CEOs, and change in corporate strategy. *Strategic Management Journal*, 22(12), 1113–1137.

- Westphal, J. D., and Milton, L. P. (2000). How Experience and Network Ties Affect the Influence of Demographic Minorities on Corporate Boards. *Administrative Science Quarterly*, 45(2), 366–398.
- Wheelen, T. L., Hunger, J. D., Hoffman, A. N., and Bamford, C. E. (2004). *Strategic management and business policy* (9th ed.). Upper Saddle River, NJ, Pearson Prentice Hall.
- Whitehead, A. L., Julious, S. A., Cooper, C. L., and Campbell, M. J. (2016). Estimating the sample size for a pilot randomised trial to minimise the overall trial sample size for the external pilot and main trial for a continuous outcome variable. *Statistical Methods in Medical Research*, 25(3), 1057–1073.
- Wiersema, M. F., and Bantel, K. A. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal*, 35(1), 91–121.
- Wijethilake, C., Ekanayake, A., and Perera, S. (2015). Board involvement in corporate performance: evidence from a developing country. *Journal of Accounting in Emerging Economies*, 5(3), 250–268.
- Wilkinson, P., and Quarter, J. (1996). *Building a community-controlled economy: The Evangeline co-operative experience*. Toronto, University of Toronto Press.
- Willaby, H. W., Costa, D. S. J., Burns, B. D., MacCann, C., and Roberts, R. D. (2015). Testing complex models with small sample sizes: A historical overview and empirical demonstration of what partial least squares (PLS) can offer differential psychology. *Personality and Individual Differences*, 84, 73–78.
- Wincent, J., Anokhin, S., and Boter, H. (2009). Network board continuity and effectiveness of open innovation in Swedish strategic small-firm networks. *R & D Management*, 39(1), 55–67.
- Wincent, J., Anokhin, S., and Örtqvist, D. (2010). Does network board capital matter? A study of innovative performance in strategic SME networks. *Journal of Business Research*, 63(3), 265–275.
- Woolcock, G. (2002). Social Capital and Community Development: Fad, Friend or Foe. In *Queensland Local Government Community Services Association Annual Conference*. Rockhampton (Vol. 192).
- Woolcock, M. (1998). Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework. *Theory and Society*, (27), 151–208.

- Yaacob, A., Hammad Ahmad Khan Zuraini Yaacob, H., and Hussin, Z. (2014). Modelling the impact of strategic planning, structural capital, relational capital, members' participation, governance practices and human capital development on cooperatives' performance. *Journal of Business & Management*, 2(2), 249–256.
- Yamane, T. (1967). *Elementary Sampling Theory*. New Jersey, Prentice-Hall.
- Yamori, N., Harimaya, K., and Tomimura, K. (2017). Corporate governance structure and efficiencies of cooperative banks. *International Journal of Finance and Economics*, 22(4), 368–378.
- Youth Societies and Youth Development Act 2007 (2007). https://www.youthpolicy.org/library/wp-content/uploads/library/2007_Laws_Malaysia_Youth_Societies_Development_Eng.pdf (accessed November 28, 2021)
- Yu, L., and Nilsson, J. (2018). Social capital and the financing performance of farmer cooperatives in Fujian Province, China. *Agribusiness*, 34(4), 847–864.
- Zadeh, B. S., and Nobaya Ahmad. (2010). participation and community development. *Journal of Social Sciences*, 2(1), 13–14.
- Zahari, J. *Penglibatan dan Proses Membuat Keputusan: Kajian Kes di PPK MADA*. Universiti Utara Malaysia, 1994.
- Zahra, S. A., and Pearce, J. A. (1989). Boards of directors and corporate financial performance: A Review and Integrative Model. *Journal of Management*, 15(2), 291–334.
- Zainal, M., Harun, M., and Chin, O. (2015). Examining the association between group cohesion and group performance in the co-operative movement. *International Journal of Business and Industrial Marketing*, 1(2), 26–30.
- Zamanzadeh, V., Ghahramanian, A., Rassouli, M., Abbaszadeh, A., Alavi-Majd, H., and Nikanfar, A.-R. (2015). Design and implementation content validity study: development of an instrument for measuring patient-centered communication. *Journal of Caring Sciences*, 4(2), 165.
- Zeuli, K., Freshwater, D., Markley, D., and Barkley, D. (2004). Cooperatives in rural community development: A new framework for analysis. *Journal of Community Development Society*, 35(2), 17–35.
- Zeuli, K., and Radel, J. (2005). Cooperatives as a community development strategy: Linking theory and practice. *The Journal of Regional Analysis and Policy*, 35(1), 43–55.
- Zhao, X., Lynch Jr, J. G., and Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research*, 37(2), 197–206.

Zheng, S., Wang, Z., and Awokuse, T. O. (2012). Determinants of Producers' Participation in Agricultural Cooperatives: Evidence from Northern China. *Applied Economic Perspectives and Policy*, 34(1), 167–186.

Zikmund, W. G., Carr, J. C., and Griffin, M. (2013). *Business Research Methods*. Mason, OH, Cengage Learning.

Zona, F., Gomez-Mejia, L. R., and Withers, M. C. (2018). Board Interlocks and Firm Performance: Toward a Combined Agency–Resource Dependence Perspective. *Journal of Management*, 44(2), 589–618.



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