

# Revisión sistemática de los factores que influyen en la eficacia de la Junta Cooperativa

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**Resumen.** Las cooperativas desempeñaron una parte importante de la economía global, y su éxito depende de la efectividad de la Junta cooperativa para desempeñar sus funciones. Este artículo tiene como objetivo revisar y sintetizar la literatura de los últimos diez años para mejorar nuestra comprensión de los factores que han afectado la efectividad de la Junta. Una revisión sistemática de las bases de datos Scopus y Web of Science identificó 13 estudios relacionados que responden a preguntas de investigación, guiados por el método de la Declaración PRISMA (Elementos de informes preferidos para revisiones sistemáticas y metaanálisis). Un análisis de estos artículos dio como resultado cuatro temas principales: composición del Consejo, características del mismo, su estructura y proceso, y estos cuatro temas formaron un total de 12 subtemas. Este estudio tiene tres contribuciones significativas. En primer lugar, proporciona una visión general de los estudios de la Junta cooperativa. En segundo lugar, esta revisión sistemática destacó los factores que afectan la efectividad de la Junta. Finalmente, derivado de este análisis sistemático, dibujamos el patrón de variables que se analizaron al evaluar la eficacia de la Junta cooperativa. Los resultados indicaron que los estudios de la Junta cooperativa siguen siendo inadecuados y, en el contexto de los países en desarrollo, la investigación empírica se encuentra aún más rezagada. La mayoría de los estudios se concentran principalmente en el efecto de las características del Consejo, seguidos de la composición, el proceso y su estructura. Se describen algunas recomendaciones para futuras investigaciones para explorar otros factores relacionados que pueden mejorar la efectividad de la junta cooperativa, es decir, desde la perspectiva de la función de provisión de recursos de los directores.

**Palabras clave:** Cooperativa; Consejo; Eficacia; Revisión Sistemática.

**Claves Econlit:** P13; D79; L30; Y10.

## [en] Systematic review of factors influencing the effectiveness of the co-operative board

**Abstract.** Co-operatives played a significant part of the global economy, and its success depends on the effectiveness of the co-operative board to perform their roles. This article is aimed at reviewing and synthesizing the literature of the last ten years in order to enhance our understanding of the factors that have affected the effectiveness of the board. A systematic review of the Scopus and Web of Science databases identified 13 related studies that respond to research questions, guided by the PRISMA Statement (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) method. An analysis of these articles resulted in four main themes – board composition, board characteristics, board structure and board process, and these four themes formed a total of 12 sub-themes. This study has three significant contributions. Firstly, it provides an overview of studies of the co-operative board. Second, this systematic review highlighted the factors impacting the board's effectiveness. Finally, derived from this systematic analysis, we draw the pattern of variables that were analyzed in assessing the efficacy of the co-operative board. The findings indicated that the studies of the co-operative board are still inadequate, and in the context of developing countries, empirical research lags even further behind. Most studies concentrate mainly on the effect of board characteristics, followed by board composition, board process and board structure. Some recommendations for future research are outlined to explore other related factors that may enhance the co-operative board's effectiveness, namely from the perspective of the resource provision role of directors.

**Keywords:** Co-operative; Board; Effectiveness; Systematic Review.

**Summary.** 1. Introduction. 2. Methodology. 3. Result and Discussion. 4. Conclusion. 5. References.

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## 1. Introduction

El Co-operative board members can be described as a significant governing body with official authority and legal responsibility to protect members' collective interest (Bijman, Hendrikse, & van Oijen, 2013; Jussila, Goel, & Tuominen, 2012). The effectiveness of the board in performing strategic roles depends strongly on their ability to perform their functions (Murphy and McIntyre, 2007), and there has been a growing empirical investigation (e.g. (Choi, Choi, Jang, & Park, 2014; Hakelius, 2018; Huang, Fu, Liang, Song, & Xu, 2013; Yamori, Harimaya, & Tomimura, 2017)) into board attributes influencing the co-operative board's effectiveness.

In identifying and examining the attributes of the co-operative board, this study adopts concepts and approaches of corporate governance since both regulatory bodies have common obligations to their respective stakeholders (Keeling Bond, 2009). This study was therefore guided by Zahra and Pearce's (1989) work on the conceptualization of board attributes, which included board composition, characteristics, structure, and process. The board composition relates to the board size and the combination of various types of directors i.e. insiders or outsiders (Dalton, Daily, Ellstrand, & Johnson, 1998; Pearce & Zahra, 1992; Zahra & Pearce, 1989).

Meanwhile, board characteristics can be classified into three categories namely demographic, personality and competencies (Wan Yusoff, 2010) including age, gender, tenure, number of directorships, integrity, credibility, courage, confidence, general, functional and specific knowledge, skills, experience and educational qualification (Coulson-Thomas, 1992; Hambrick & Mason, 1984; Milliken & Martins, 1996; Pfeffer, 1983; Westphal & Milton, 2000; Zahra & Pearce, 1989).

On the other hands, board structure refers to procedures that have become formalized modes of action, codified and ultimately limit the process and behavior of the board, for example the board size, the number and types of committees, the frequency of meetings and the existence of job descriptions for board members (Bradshaw, Murray, & Wolpin, 1992; Cornforth, 2001).

Whereas board process refers to the strategic decision-making related activities (Forbes & Milliken, 1999; Zahra & Pearce, 1989) include how board meetings are conducted, the clarity of board roles, the extent to which a common vision for the organisation exists, the ability to manage conflict within the board and between the board and staff, the quality of communication between the board and staff, and whether boards and managers periodically review how they work together (Bradshaw et al., 1992; Cornforth, 2001).

Although there has been a growing study exploring these attributes and their relationships with the board effectiveness, the aim of this paper is to synthesize the work available in the co-operative context over the past decade and to examine the trend of factors that have been studied. Moreover, this study is essential and aligned with the Malaysian government's policy of recognizing the importance of the co-operative sector as the third-largest contributor to the economy (Hafizah Hammad Ahmad Khan, Mahazri' Aini Yaacob, Hussin Abdullah, & Siti Hajar Abu Bakar Ah, 2016).

### 1.1. Towards a systematic review framework on co-operative board

Based on the previous literature and discussions, the motivation to carry out this study is grounded on the premise that insufficient attention and inadequate literature on co-operative governance (Intan Waheedah Othman, Maslinawati Mohamad, & Abdullah Azizah, 2013; Mohd Khairuddin Hashim & Dzulhilmi Ahmad Fawzi, 2015) specifically related to co-operative board. Hence, this review allows us to synthesize and categorized the relevant articles according to the factors that may influence the effectiveness of the co-operative board. Since, the co-operative board is a group of making strategic decisions (Van Ees & van der Laan, 2012), the factors that influence the board effectiveness need to be drawn. Therefore, by reviewing the pattern of previous studies provides the opportunity to explore other potential factors that may influence the effectiveness of the co-operative board.

According to Moher, Liberati, Tetzlaff, & Altman, (2010), a systematic review is an analysis of a formed question that uses systematic and explicit techniques to identify, select, critically assess relevant research, and to collect and examine data from past studies. Through this technique, the authors' claims of precision in their research can be proved, allowing for the identification of gaps and directions for future research (Shaffril, Krauss, & Samsuddin 2018). Thus, this systematic review will provide detail on the review methods applied, an overview of the parameters with regards to the studies of the co-operative board and highlighted the pattern and factors that might influence the efficacy of the co-operative board, which could assist future scholars to focus on the research that brings to their interest and concern.

In constructing a proper systematic review, this study was guided by two main research questions: (1) What is the pattern of existing works done in understanding the pattern of co-operative board according to the empirical studies that have been published during the past ten years? (2) What are the factors that influence the effectiveness of the co-operative board?

## 2. Methodology

In this section, the technique used to obtain articles related to the co-operative board is discussed in order to identify the factors affecting the effectiveness of the board. We used the procedure called Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA), which comprised resources from the database searching - Scopus and Web of Science, to run the systematic review, eligibility and exclusion criteria, steps of the review process (identification, screening, eligibility) and data abstraction and analysis.

### 2.1. Preferred Reporting Items Systematic Reviews and Meta-Analysis (PRISMA)

The review was conducted based on the PRISMA Statement and according to Moher et al. (2010), even though this method is commonly used for medical and healthcare field, this method can also be employed as a foundation for reporting systematic reviews of other types of research disciplines. It is based on the formed question that uses systematic and explicit methods to identify, select, and critically review as well as analyze the studies that are included in the review (Higgins and Green, 2006). Thus, PRISMA allows for an exhaustive search of words relating to board capital and its impact on the effectiveness of the co-operative board.

### 2.2. Resources

In this study, the review process is based on two primary journal databases, i.e. Scopus and Web of Science (WoS). Scopus is the highest abstract and citation databases of peer-reviewed literature with 22,800 journals from more than 5,000 publishers worldwide. Furthermore, this database consists of various subject areas, including business, management and accounting, art and humanities, social science, and economics. WoS, on the other hand, is another database used in the study as it is a comprehensive database consisting of 18,000 high-impact journals from 3,300 publishing partners, including more than 5,200 publications on social science across 55 disciplines, covering topics related to economics, business and management. Moreover, it consists of over 100 years of comprehensive data that is fully indexed, including records and back files that been ranked according to citations, papers, and citations per paper.

### 2.3. Eligibility and exclusion criteria

The eligibility and exclusion guidelines are determined (see Table 1). Firstly, only article journals are selected, which excludes the review article, book series, books, chapters in book and conference proceeding. Secondly, the research efforts focused solely on studies written in English to avoid any confusion and difficulty in translating. Thirdly, only studies performed between 2010 and 2019 (10 years) as it is reasonable time to review the evolution of research and related publications as more than 5 years is sufficient timing for systematic review updates (Bashir, Surian and Dunn, 2018).

Table. 1. The inclusion and exclusion criteria

<b>Criterion</b>	<b>Eligibility</b>	<b>Exclusion</b>
Literature type	Journal (research articles)	Journals (systematic review), book series, book, chapter in book, conference proceeding
Language	English	Non-English
Time line	Between 2010 and 2019	< 2010

### 2.4. Systematic review process

The systematic review process was conducted in Mac 2020, which involved four stages. The first stage was identifying keywords used for the search process. Based on previous studies and the thesaurus, keywords similar and related to “co-operative”, “board” and “effectiveness” were used. The authors queried the database with the keywords included an asterisk (\*) to find variations in the keywords as shown in Table 2. At this stage, total numbers of 286 articles were identified through database searching. After thorough checking, 62 duplicated articles were removed. These duplications are due to the similarities of the journal that appeared in both databases in various disciplines.

The second stage was screening the title and the abstract so that it suits the research goal. At this stage, out of 224 articles eligible to be reviewed, a total of 105 articles were removed. The third stage is eligibility, where the full articles were accessed. A total of 116 articles were excluded at this stage because of their

content, which is not based on the co-operative board and does not concentrate on factors that affect the effectiveness of the board. The last stage of review resulted in a total of 13 articles that were used for the qualitative analysis (see Figure 1).

Table. 2. The search string used for the systematic review process

Database	Keyword used
Scopus	( TITLE-ABS-KEY ( "cooperatives*" OR "co-operatives*" OR "co-ops*" ) AND TITLE-ABS-KEY ( "board*" OR "directors*" OR "directorate*" OR "executives*" ) AND TITLE-ABS-KEY ( "effectiveness*" OR "capability*" OR "effect*" OR "efficacy*" OR "efficiency*" OR "performance*" OR "success*" OR "competent*" ) )
Web of science	("cooperatives*" or "co-operatives*" or "co-ops*") AND TOPIC: ("board*" or "directors*" or "directorate*" or "executives*") AND TOPIC: ("effectiveness*" or "capability*" or "effect*" or "efficacy*" or "efficiency*" or "performance*" or "success*" or "competent*")

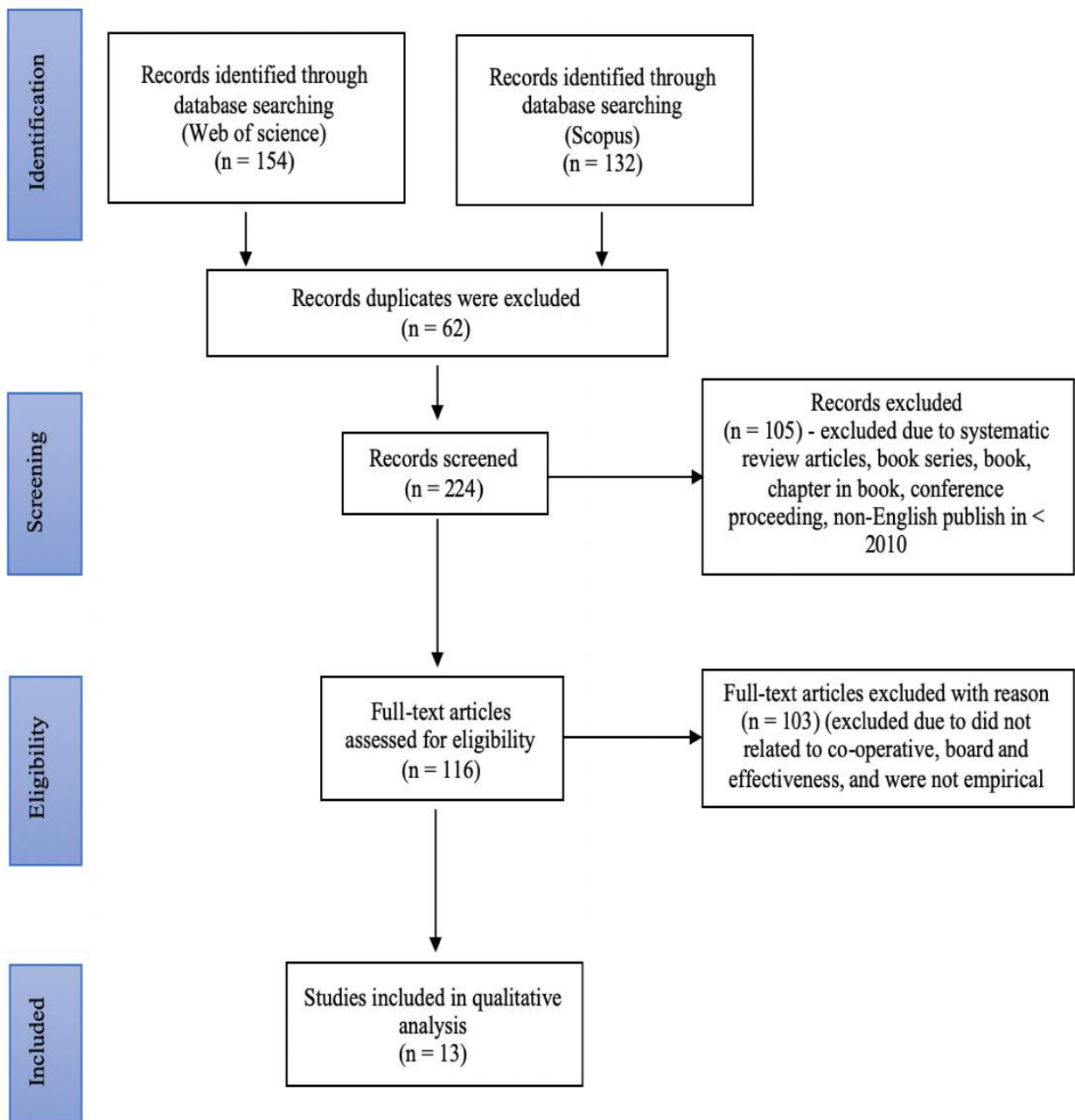


Figure.1. The flow diagram of the study (Adapted from Moher et al., 2010).

## 2.5. Data abstraction and analysis

The 13 articles were evaluated and examined, and efforts were focused on particular studies that responded to the formed questions. The data were extracted first by reading through the abstracts, then the full articles to identify the related themes and sub-themes in accordance with board attributes as suggested by Zahra & Pearce (1989). Qualitative analysis was performed using content analysis to identify themes and sub-themes related to factors that contribute to the effectiveness of the co-operative board. The authors then classified the papers according to title, authors, countries, objective, main study design, sample, and findings as shown in Table 3.

Table. 3. Summary of reviewed studies

No.	Authors/ Countries	Title	Objective	Main study design	Sample	Findings
1.	Hernández-Nicolás, Martín-Ugedo, & Mínguez-Vera (2019) – Spain	The effect of gender diversity on the board of Spanish agricultural co-operatives on returns and debt: An empirical analysis	Aimed to examine the effect that gender diversity on the board exerts on returns, debt level, and economic risk	QN	672 agricultural co-operatives	The results show that firms with greater female representation on their boards have higher returns and operational risk and lower levels of debt
2.	D'Amato & Gallo (2019) - Italy	Bank institutional setting and risk-taking: the missing role of directors' education and turnover	Aimed to analyze the relationship between bank institutional setting and risk-taking by exploring whether board education and turnover are drivers of the risk propensity of co-operative banks compared to joint-stock banks	QN	638 banks, consisting of 198 joint-stock banks and 440 co-operative banks	The findings show that co-operatives take less risk than joint-stock banks because of the lower educational level of co-operative directors
3.	Cahya Kusuma, Afif, Gunawan, Mukmin, & Humaira (2019) - Indonesia	Co-operative success based on entrepreneurship, capital, accounting knowledge and participation members	Aims to examine the influence of entrepreneurship, capital, co-operative accounting, and member participation in co-operative success	QN	31 of co-operatives	The study found that the co-operative knowledge influences the success of co-operatives, while the entrepreneurial aspect had no effect on the success of co-operatives
4.	Franken & Cook (2019) - United State	Do corporate governance recommendations apply to U.S. agricultural co-operatives?	Aimed at exploring main aspects of corporate governance for comparison in the	QN	460 agricultural co-operatives	The results show that a negative relationship between board size and performance, while the inclusion

		context of the agricultural co-operative			of outside directors on the board leads to a better overall performance	
5.	Hakelius (2018) - Sweden	Understanding the board of Swedish farmer co-operatives – Cases focusing on board composition and interaction patterns	To examine the relationship between board composition and interaction patterns with the performance of co-operatives	QL	13 agricultural co-operatives	Findings showed that co-operatives benefit from larger board sizes, well-educated and consensus between the directors and the CEO. However, the composition of external directors, the long-term tenure of directors and the frequency of board meetings do not increase the overall performance
6.	Hasan, Azhari, & Abd. Majid (2018) - Indonesia	How efficient and productive are co-operatives in Indonesia? Empirical evidence from data envelopment analysis	Aimed at empirically measuring efficiency and productivity of the co-operatives across 33 provinces nationwide	QN	150,223 co-operatives across 33 provinces	The results show that the productivity of the co-operatives influences by a larger board size
7.	Yamori, Harimaya, & Tomimura (2017) - Japan	Corporate governance structure and efficiencies of co-operative banks	To clarify whether the effect of the governance-related variables on firm performance varies across stock and co-operative banks in Japan	QN	526 Regional stock bank and 1,351 Shinkin co-operative banks	Findings showed that a large board size has negative effects on co-operative banks while the presence of outside directors has a significant effect on efficiency measures
8.	Chareonwongsak (2017) - Thailand	Enhancing board motivation for competitive performance of Thailand's co-operatives	To examine the factors that influence the motivation of co-operative boards of directors and its effect on the co-operative performance	QN	330 co-operatives	Findings discovered that factors that affect the board member motivation includes board authority and function, understand the co-operative's context, board meeting quality, board members' skill, transparency in the evaluation and compensation setting process and financial

							compensation
9.	Choi, Choi, Jang, & Park (2014) - South Korea	Does the effectiveness of board of directors affect firm performance of consumer co-operatives? The case of iCOOP Korea	To examine how effectiveness of the board influences members' participation and the participation has effect on performance of co-operatives in the case of iCOOP Korea	QN	30 co-operatives	Findings found that the management skills and knowledge of the board do not have a significant effect on the co-operative financial performance	
10.	Huang, Fu, Liang, Song, & Xu (2013) – China	The efficiency of agricultural marketing co-operatives in China's Zhejiang Province	Aimed to estimates technical, scale, and pure technical efficiencies for the agricultural marketing co-operatives in China's Zhejiang Province	QN	896 co-operatives	The results show that the number of board members have a negative impact on the efficiency of co-operatives	
11.	Pozzobon & Zylbersztajn (2013) – Brazil	Democratic costs in member-controlled organizations	To examine the effect of costs of democratic control on the competitiveness of traditional agricultural co-operatives	QL	12 co-operatives	Findings show that the larger the board of directors, the higher the direct democratic	
12.	Rosairo, Lyne, Martin, & Moore (2012) - Sri Lanka	Factors affecting the performance of farmer companies in Sri Lanka: Lessons for farmer-owned marketing firms	To examines how the institutional, group, and management characteristics of these farmer companies affect their performance	QL	6 farmer companies	The results indicate that there is a positive correlation between financial performance and governance arrangements including conducting the board meeting	
13.	Azadi, Hosseininia, Zarafshani, Heydari, & Witlox (2010) - Iran	Factors influencing the success of animal husbandry co-operatives: A case study in Southwest Iran	Aimed to identify the factors influencing the success of animal husbandry co-operatives in Southwest Iran	QN	95 co-operatives	Findings shows that technical knowledge and interest is an essential individual variable that has impact on the co-performance success	

Note: QN : Quantitative; QL: Qualitative

### 3. Result and discussion

The review resulted in four main themes and 12 sub-themes related to co-operative board. The four main themes are board composition (two sub-themes), board characteristics (five sub-themes), board structure (one sub-themes) and board process (four sub-themes) as shown in Table 2.

A total of eight studies focused on examining the factors that influence the effectiveness of the co-operative board in the context of Asian countries (Azadi, Hosseininia, Zarafshani, Heydari, & Witlox, 2010; Cahya Kusuma et al., 2019; Chareonwongsak, 2017; Choi et al., 2014; Hasan, Azhari, & Abd. Majid, 2018; Huang et al., 2013; Rosairo, Lyne, Martin, & Moore, 2012; Yamori et al., 2017). Meanwhile, in the European countries, three studies, i.e., Spain, Italy and Sweden (D'Amato & Gallo, 2019; Hakelius, 2018; Hernández-Nicolás et al., 2019), and two studies represent continental American, namely Unites State of America and Brazil, explicated the factors leading to the effectiveness of the co-operative board (Franken & Cook, 2019; Pozzobon & Zylbersztajn, 2013).

In comparison, 10 studies used a quantitative approach while the other three studies used qualitative analytical approaches. In relation to the published years, four papers were published in 2019, two studies were published in 2018, 2017 and 2013, one research was conducted in 2010, 2012 and 2014 and no publications were released in 2011, 2015 and 2016 (Figure 2). Based on the findings, the overall results indicate that the studies related to the factors influencing the co-operative board effectiveness are still limited and inadequate. The possible reasons for the limited numbers of these studies because the co-operative form is usually regarded as less efficient economically as compared to the investor-owned firm (Porter and Scully, 1987; Toms, 2012) and it is too focusing on social contributions that indirectly affect its profits (Levi and Davis, 2008). Furthermore, the co-operative is also known as the social enterprise (Defourny and Nyssens, 2008), thus, the ultimate objective is to create social value rather than profit. Therefore, co-operative platform is seen as irrelevant and play a minor role when compared to the investor-owned firm.

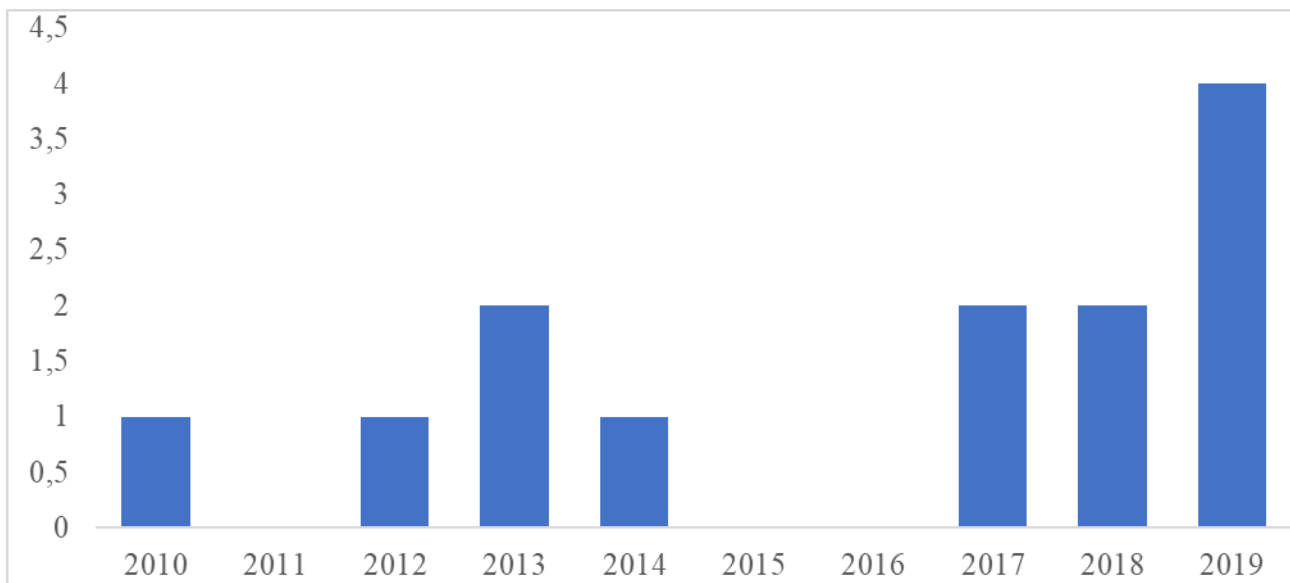


Figure. 2. Number of articles published by year

#### 3.1. Factors influencing co-operative board effectiveness

This section concentrates on the factors affecting the co-operative board's effectiveness consisting of board composition, board characteristics, board structure and board process.



Table. 4. The findings

	Authors/ Countries	Board composition		Board characteristics					Board structure	Board Process			
		BS	O	G	E	KS	T	A	FM	C	A	MQ	CM
1.	Hernández-Nicolás, Martín-Ugedo, & Mínguez-Vera (2019) – Spain			✓									
2.	D’Amato & Gallo (2019) - Italy				✓								
3.	Cahya Kusuma, Afif, Gunawan, Mukmin, & Humaira (2019) – Indonesia					✓		✓					
4.	Franken & Cook (2019) - United State	✓	✓										
5.	Hakelius (2018) – Sweden	✓	✓		✓		✓	✓	✓		✓		
6.	Hasan, Azhari, & Abd. Majid (2018) – Indonesia	✓											
7.	Yamori, Harimaya, & Tomimura (2017) - Japan	✓	✓										
8.	Chareonwongsak (2017) - Thailand					✓		✓			✓	✓	
9.	Choi, Choi, Jang, & Park (2014) - South Korea					✓							
10.	Huang, Fu, Liang, Song, & Xu (2013) - China	✓											
11.	Pozzobon & Zylbersztajn (2013) – Brazil	✓											
12.	Rosairo, Lyne, Martin, & Moore (2012) - Sri Lanka												✓
13.	Azadi, Hosseininia, Zarafshani, Heydari, & Witlox (2010) – Iran					✓		✓					

Board composition	Board characteristics	Board structure	Board process
BS = Board size	G = Gender	F = Frequency of meetings	C = Consensus between the directors and the CEO
O = Outsider	E = Education		A = Authority and function
	KS = Knowledge and skills		MQ = Meeting quality
	T = Tenure		CM = Conducting meeting
	A = Attitudes		

### 3.1.1. Board composition

A total of six out of 13 studies highlighted the variables that are linked to board composition that affect the board effectiveness. The most common board composition variables are board size (six studies) while four studies found that the effectiveness of the co-operative board depended on the composition of the outsider board member (Table 4).

Efforts to determine optimal board size is generally contradictory (Wijethilake, Ekanayake, & Perera, 2015) either large (Hillman, Withers, & Collins, 2009; Judge & Zeithaml, 1992; Pfeffer & Salancik, 1978) or small board size (Golden & Zajac, 2001; Goodstein, Gautam, & Boeker, 1994). Franken & Cook (2019) pointed out that the optimal board size was driven by the size of the co-operative. From the point of view of resource dependency theory, a larger board may be preferred because it can contribute to diversified knowledge and skills (Forbes & Milliken, 1999; Zahra & Pearce, 1989) and greater external linkages (Goodstein et al., 1994). This is supported based on data obtained from a sample of 13 Swedish agricultural co-operatives, a study conducted by Hakelius (2018) found that the board size of high-performance co-operatives was larger (up to 12 directors) than that of low-performing co-operatives (9 directors). In a similar vein, Hasan et al. (2018) in measuring the efficiency and productivity of Indonesian co-operative proposed that the co-operatives should consider merging few small sizes of co-operatives to enlarge the board size.

Nevertheless, a number of counter-arguments regarding maintaining a large board size, as it is seen hindering effectiveness and efficiency of the firm's decision-making process (Wijethilake et al., 2015). This is because when board size passes a certain threshold, it may begin to adversely affect the performance of the firm (Geoffrey Kistruck, 2006). For instance, using the dataset of 896 marketing co-operatives in the province of Zhejiang, Huang et al. (2013) discovered that more board members do not increase the performance of co-operatives as supported by Yamori et al. (2017) in their study when measuring the impact of a large number of board members among Japanese co-operatives. Furthermore, an empirical study performed by Franken & Cook (2019) found that when the board decreases its size, the average ROA rises by about 6 per cent when assessing the overall efficiency of the U.S. agricultural co-operative. Besides that, Pozzobon & Zylbersztajn (2013) also proposed that the efficiency of the co-operative board can be improved with a proper board seat consisting of the producer of marginal and main products based on their study of the Brazilian agricultural co-operative's competitiveness.

Another aspect that has been highlighted affecting the board effectiveness is the presence of the outsider director in the co-operative board. According to Franken & Cook (2019), the inclusion of external directors, especially those with industry experience, leads to better overall performance that indirectly improves the effectiveness, which is also supported by Yamori et al. (2017) in the context of Japanese co-operative banks. Yamori and colleague claimed that the presence of outside directors as a means of improving co-operative governance, for example, when the board meetings involve external directors, it tends to stay on the topic and bring objectivity to the board (Dunn, Crooks, Frederick, Kennedy, & Wadsworth, 2002). In contrast, Hakelius (2018) found that composition of outside directors among the Swedish farmer co-operatives do not improve the overall performance because they existence are only useful in terms of bringing "fresh eyes" and to avoid politically influenced during decisions making in the boardroom.

### 3.1.2. Board characteristics

The findings of this study also discovered that a total of seven studies focused on the board characteristics. Five sub-themes emerged under this theme, namely gender, education, knowledge and skills, tenure and attitudes. Four studies have shown that the co-operative board knowledge and skills affect their effectiveness, while another two studies reported that education among the board members serve as an essential element that develops and enhance the role of the co-operative board. Four studies mentioned the attitudes of the co-operative board reflecting personality characteristics which are referred to as the unseen structure and mechanism within an individual (Hogan, 2004), and two additional studies described the co-operative board demographic characteristics, namely gender and tenure (Table 2).

Several studies stated that the effectiveness of the co-operative board relied on the knowledge and skills of the members (Azadi et al., 2010; Cahya Kusuma et al., 2019; Chareonwongsak, 2017; Choi et al., 2014). In Indonesia, the board accounting knowledge is an important variable in determining the success of the co-operative (Cahya Kusuma et al., 2019) and recruiting board members with knowledge and skills is essential in Thailand and one way to enhance their skills is by encouraging them to attend the co-operative development seminars (Chareonwongsak, 2017). Furthermore, based on the study conducted by Azadi et al. (2010), they explicitly pointed out the significance of technical knowledge that influences the performance of animal husbandry co-operatives in Southwest Iran in meeting the requirement of Iranian agricultural sector (Amini & Ramezani, 2008). Although knowledge and skills improve the function of the board against co-operative performance, yet Choi et al. (2014) discovered that this advantage does not encourage members to participate in co-operative activities.

In terms of attitudes, Azadi et al. (2010) found that interest is an essential individual variable that has a major impact on the co-operative board behavior in improving their technical knowledge and understanding of the co-operative concept. Besides that, in their research on the successful co-operative in the City of Bogor, Cahya Kusuma et al. (2019) discovered that the entrepreneurial aspect, which tests the mental activity of the members of the board, had no impact on the performance of the co-operatives. Likewise, Chareonwongsak (2017) also highlighted another board members mental behavior, namely transparency in the evaluation process that is found to influence board member motivation, which comes under instrumentality (Vroom, 1964). Besides that, commitment is another positive personality trait of the effective board (Wan Yusoff, 2010), and Hakelius (2018) found this characteristic to be more prominent in the high-performance co-operative which is measured based on their engagement and activeness.

In addition, Hernández and Hakelius (2018) further explore the board characteristics in term of demographic. Hernández-Nicolás et al. (2019) in their study focuses on gender diversity on the boards of Spanish agricultural co-operatives particularly on women representative in the boardroom. They discovered that women participation on the board shows to improve co-operative returns. This result could be due to different perspective, experiences and, unique styles of work (Daily & Dalton, 2003; Hillman, Cannella Jr, & Harris, 2002). In addition, in her analysis on the tenure on the board, Hakelius (2018) found that there are inconclusive results that indicate a long-term tenure of directors have an effect on the overall efficiency of co-operatives. This is because the chairmen were the only directors examined in the study, and due to relations with the manager (Holmström, 1999), they may not be able to effectively carry out the monitoring role.

### **3.1.3. Board structure**

Based on the results as shown in Table 4, it describes only one variable of board structure has been investigated in examining the board effectiveness. In her research, Hakelius (2018) measured the structure of the board based on the frequency of board meetings. In the literature on corporate governance, it has been hypothesized that frequent board meetings contribute to better overall performance on markets and the organization internally (Jackling & Johl, 2009; Uzun, Szewczyk, & Varma, 2004; Vafeas, 1999). Whereas, Hakelius discovered that there is no evidence to support this hypothesis among the Swedish agricultural co-operatives. She argued that the frequency of board meetings is intended to resolve the shortcomings of management traits of board members due to the members being elected from among those local community leaders and farmers.

### **3.1.4. Board process**

A total of four sub-themes emerged under the board process with one study for each sub-theme, namely consensus between directors and CEO, board authority and function, board meeting quality and conducting of the board meeting (Table 4).

The degree of consensus between directors and the CEO was highlighted to determine the degree of effective board work and the finding indicates that the high level of consensus is linked to the co-operative performance (Hakelius, 2018). In order to avoid resource-wasting conflicts (Cook & Burress, 2013) and to protect the interests of members (Cornforth, 2004), it is crucial to establish a balanced power between the board and the CEO.

Meanwhile, Chareonwongsak (2017) found in his study in the context of Thailand that board member expectancy is one of the factors influencing board motivation which indirectly leads to co-operative success. According to expectancy theory (Vroom, 1964), expectancy is defined as the assumption that one's behavior would result in the achievement of desired outcomes and in this study, board expectancy is evaluated on the basis of board authority and function. In order to foster board effectiveness through board authority and operation, Chareonwongsak suggested that the co-operatives should concentrate on developing awareness and understanding about the principles and guidelines of good co-operative governance as well as recognize the roles and responsibilities of the members of the co-operative board.

Additionally, Chareonwongsak (2017) also discovered in his study that from the viewpoint of expectancy, the quality of board meetings has an impact on board motivation. This feature reflects the board process as it addresses how to manage board meetings (Cornforth, 2001). Chareonwongsak assessed the quality of the board meeting based on the degree to which the agenda meeting relates to specific issues and is just for information purposes.

In addition, a study by Rosairo et al. (2012) focused on the Sri Lankan farmer companies that adopted a mixture of traditional marketing co-operatives and investor-owned company structures have found the internal factors that influence the company success. One of the factors is the transparency and accountability of the governance arrangements that include how to execute the board meeting. In their study, there is a strong connection between good financial results and board meetings arrangements, such as access to

minutes of board meetings, sufficient notification of the meetings and timely information, and setting the agenda for board meetings. This finding is consistent with Chaves, Soler, & Sajardo (2008) definition of good co-operative governance where good governance is to achieve the maximum level of economic performance compatible with the preservation or growth of the co-operative identity, in particular, maintaining the democratic decision-making principles.

Based on the findings shown in Table 4, it demonstrates that board characteristics are the most observed variables in the articles examined, with a total of seven studies covering five sub-themes, namely gender, education, skills and skills, tenure and attitudes. Meanwhile, six studies have highlighted the variables under the board composition cluster that explicitly addressed the influence of board size and outsider board member membership. The third category is board process involving three studies concerning the decision-making related activities and style of the board with four sub-themes emerged, and only one study assessed the structure of the board based on the frequency of board meetings.

In summary, similar principles of corporate governance have been implemented from a co-operative viewpoint (Hakelius, 2018), and the usage of these principles has been the in non-profit literature since 1984 (Friedman & Miles, 2006). Nevertheless, there is a slight difference in co-operative governance compared to corporate governance (Saleh & Hamzah, 2017), because co-operative boards serve as the supervisor of management and the guardian of the democratic rights of their membership (Berge, Caldwell, & Mount, 2016).

#### 4. Conclusion

This systematic review highlighted the pattern of existing studies in understanding the co-operative board based on the articles that have been published during the past ten years. This study also attempts to identify factors that influence the effectiveness of the board that contributes to co-operative performance. After reviewing the aforementioned literature concerning the co-operative board, the overall results indicate that the studies are still inadequate, as illustrated in Figure 2. In the context of Malaysia, Intan Waheedah Othman et al. (2013) pointed out that the literature on governance involving the co-operative organizations are still at an early stage in Malaysia and are very limited compared to the literature on corporate governance for public listed companies. Thus, this opens a new avenue for an empirical study on the co-operative board as the results indicated that the studies are still inadequate.

Furthermore, within the timeline of the reviews, previous scholars have discovered various factors that affect co-operative board effectiveness. Based on the systematic reviews performed, the authors have identified 12 factors that can be grouped into four main categories, namely board composition, board characteristics, board structure and board process. However, most of the studies pay more attention to examining the impact of board characteristics (seven studies), as shown in Table 3.

According to Daily, Dalton, and Cannella (2003), any advance in the research of board effectiveness demands of new fields of investigation. Thus, an exploration of new fields is needed such as from the perspective of the resource provision role of directors (Johnson, Daily, and Ellstrand, 1996), which suits the Resource Dependence Theory (Pfeffer and Salancik, 1978). Pfeffer and Salancik (1978) pointed out that the resource provision role of directors is to provide various resources to the organization concerning of any features, skills, or advantages that could be considered useful for the firm's operations. Hillman and Dalziel (2003) adopted this concept and introduced board capital as the main antecedent of the board's provision of resources which encompassing of human and social capital that linked to firm performance.

Human capital is refers to the director's knowledge, skills and abilities (Crook, Todd, Combs, Woehr, & Ketchen, 2011; Khanna, Jones, & Boivie, 2014; G. J. Nicholson, 2004), 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, & Jerbashian, 2015) which can be applied in different contexts (Rauch & Rijdsdijk, 2013). Meanwhile, specific human capital is refers to a set of skills to enable highly specialized tasks to be performed (Vourvachaki et al., 2015) and valuable only in occupations that require skills similar to the current one (Gathmann & Schönberg, 2007).

There are few studies in this review that have highlighted human capital elements such as accounting knowledge (Cahya Kusuma et al., 2019; Choi et al., 2014) and understanding the concept and knowledge of the co-operative (Azadi et al., 2010; Chareonwongsak, 2017), which can be identified as general human capital. On the other hands, Azadi et al. (2010) has discussed specific human capital which focuses on the importance of technical knowledge. Therefore, this is another field of concentration which has the potential to be explored in depth.

Nevertheless, the 13 articles examined do not discuss the social capital among the members of the board that may contribute to the effectiveness of the board. Social capital refers to the relations of the directors that are embedded in the social network (Haynes & Hillman, 2010), and previous studies have pointed out that the board members social capital played an important role in a greater impact on performance (e.g. Barroso-

Castro, Villegas-Periñan, & Casillas-Bueno, 2016; Fernandez & Whitney, 2014; Johnson, Schnatterly, & Hill, 2013; Kor & Sundaramurthy, 2009; G. Nicholson, Alexander, & Kiel, 2004) that indirectly affects the board effectiveness.

Therefore, to take advantage of the findings from this review, future studies should consider focusing on the perspective of resource provision role of the directors comprising of human and social capital and its impact on board effectiveness as it has not yet been explored. By understanding this concept, it will provide new insight into co-operative context by considering the impact of the co-operative board's resource provision role as to strengthen its strategic roles as the third-largest contributor sector to the economy.

## 5. References

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