

# THE LINK BETWEEN HUMAN CAPITAL AND COOPERATIVES PERFORMANCE

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## ABSTRACT

*Organisational resources are the fundamental drivers of organisational performance. Human capital is considered one of the organisational resources and many studies had found its positive impact on organisational performance. However, the association between human capital and cooperatives performance is neglected to be studied by previous researchers. The distinct characteristics of cooperatives compared to private or public organisations has paved the way for this paper to investigate the relationship between the human capital of cooperatives board members and cooperatives performance. 1,230 questionnaires were distributed to the randomly selected cooperatives in Peninsular Malaysia and 154 questionnaires were received back from the respondents. 135 questionnaires were usable for the analysis. From the correlation and linear regression analyses, the study discovered that the relationship between the human capital of cooperatives board members and cooperatives performance is positive and significant. These results were supported by findings from previous studies which have been conducted in the non-cooperatives sector. Hence, this result allows for the generalisation of the importance of human capital on organisational performance across different types of organisations.*

**Keywords:** Human Capital, Cooperatives Performance, Organizational Resources.

## INTRODUCTION

Cooperatives emerge for the purpose to improve the economic status of its members and the community at large by creating and acquiring jobs, for better working environment, decent wages, to provide an additional source of income through profit and dividends sharing (Lidasan et al., 2018; Zeuli et al., 2004). Cooperatives also aid in promoting community development and enhancing the standard of living of its members (Purtik et al., 2015).

Therefore, Pulka & Ndubuisi (2016) defined cooperatives as the group of people coming together to form an association or union with the aim of promoting their common interest. Similarly, the International Cooperative Alliance (2015) defined cooperatives as the group of individuals with autonomous powers coming together voluntarily to actualise their common economic, cultural and social interests and ambitions jointly owning and democratically managing the social enterprises (Mohamad et al., 2013). The ultimate goal of the cooperatives is to promote the welfare of their members economically and socially. Furthermore, the role of cooperatives in empowering the nation's economy should not be underestimated. This is

evidenced by the Malaysian government's targets that have lifted the cooperatives sector to become the third most important contributing sector of the country after the government and private sectors (Ahmad, 2006; SKM, 2010).

The government's recognition of the cooperatives sector as the third most important sector in national development demanded a high commitment from cooperatives driving committees. The original purpose of establishing the cooperatives as money lenders is no longer relevant in the context and aspirations of the government. This recognition has resulted in the emphasis being placed on the potential aspects to exceed the level already targeted by the Malaysian government. Although, the number of cooperatives in 2018 was 14,247 as compared to 13,899 in 2017, which reflects that the number of cooperatives in Malaysia are growing every year (SKM, 2019). However, the growth in numbers is not an indicator of the success of cooperatives performance.

Similarly, the Government also provides a wide range of support and assistance for the cooperatives sector to achieve more. Nevertheless, the performance shown by the cooperatives sector is extremely distressing where it only contributed slightly higher than 1% to the Malaysia GDP in 2016. This is seen to be far behind the government's target for the year 2020, where cooperatives contribution is expected to be more than 10% (Lanson, 2011; SKM, 2010). This achievement is far lower as compared to the other countries such as Vietnam (8.6%), France (9%), and Switzerland (16.4%) (Lanson, 2011).

Thus, despite the importance of the cooperatives to the individuals and the economy, unfortunately, little attention has been given to examining cooperatives performance. This paper therefore, identified some gaps and is aimed at exploring the antecedents to improve the performance of the cooperatives. As a result, the assessment of the factors that have a relationship with the cooperatives performance need to be empirically examined, keeping in view the theories related to organisational performance such as RBV. The resource-based View (RBV) provides guidance and direction on the selection of factors that are expected to improve the performance of the cooperatives. According to the Resource-based View (Barney, 1986), organisational resources are the fundamental drivers of the organisational performance.

Therefore, the main focus of this study is to assess the role of human capital and its effect on the cooperatives performance. The National Cooperatives Policy (2011- 2020) has identified the need for generating and enhancing the capabilities of cooperatives' human capital which is one of the activities been implemented to achieve 3<sup>rd</sup> Pillar of the Malaysian National Cooperatives Policy of 2011-2020 (SKM, 2010). The third Pillar of the National Cooperatives Policy elaborates that cooperatives' human capital can lead to a better performance.

As a result, the researchers assessed the association between human capital and cooperatives performance among the Cooperatives Board Members. Cooperatives Board Members (CBM) are considered as the driving force in determining the cooperatives' mission and vision. According to Cooperatives Rules & Regulations, the appointment of CBM is based on a majority votes during Cooperatives Annual General Meeting (AGM), instead of relying on the number of shares owned by its members. This is different from the business organisations where the members of the board of directors are appointed based on the total number of shares. Considering the importance of the cooperatives and their impact on the individuals and the economy, such studies are seen to have had a significant impact in the field of cooperatives and for the society in general. Thus, the study is aimed at contributing to the development of an

understanding of the performance of cooperatives in Malaysia. Furthermore, the results from the study might allow for generalization across different types of organisations.

## LITERATURE REVIEW

According to the resource-based view (RBV) of the organisation, performance differences across organisations is attributed to the variance in organisational resources and capabilities (Hitt et al., 2001). RBV addresses the set of resources and capabilities of the organisation that can lead to competitiveness and organisational performance (Eijaz & Mohammed, 2018). Resources that are valuable, rare, unique and difficult to imitate can provide the basis for organisation's competitive advantages and enhance performance (Barney, 1991). Organisational resources include assets, capabilities, information, knowledge, organisational processes and firm attributes controlled by the organisation that enable it to conceive and implement strategies that improved its efficiency and effectiveness (Daft, 1983). Barney (1991) has categorised the organisational resources into three categories namely as physical capital resources, organisational capital resources and human capital resources. As stated by Barney (1991) human capital is assumed as one of the vital resources to the organisation regardless of the types and size of the organisation and industry. Human capital is considered as an intangible asset of the organization. The intangible assets are not as easily identified and are often difficult for competitors to duplicate as they often require unique people and know-how to achieve (Johannesson & Jorgensen, 2017).

Similarly, according to Bontis & Serenko (2009), human capital means competency, experience and knowledge of individual managers and workers in an organisation. Indeed, the study in applied psychology and strategic human resource management discovers that investing in human capital can yield positive individual-as well as organisation-level performance outcomes (Crook et al., 2011). Human capital should be treated as a pool of human competency, experience and knowledge at the organisation level instead of individual level. The synergy derives from all members of an organisation is more promising in pursuing the mission and vision of the organisation. Nowadays, the competitive advantages of the economy and the possibilities for its modernization are largely determined by the accumulated and effectuated human capital, as well as the experience in various fields (Akhmetshin et al., 2018).

Furthermore, the majority of previous researchers measured human capital as a multidimensional construct. For instance, Assaker et al. (2018) in their study on human capital in upscale restaurants in Australia and France identify human capital consist of four dimensions, which are knowledge, skills, educations and competencies. Carmeli & Tishler (2004) and Aryee et al. (1994) suggest that human capital consists of three dimensions, namely as competency, work experience and education. Ganotakis (2012) in his study argued that human capital has two dimensions which are education and experience. Abdel-Aziz et al. (2010) in their study on human capital among middle and top level manager in pharmaceutical companies in Jordan identify human capital as multidimensional construct consist of three dimensions. The three dimensions identified by them were learning and education, experience and expertise and innovation and creation. Bontis & Serenko (2009) added that human capital includes competency, experience and knowledge.

This study focus on cooperatives as an independent association of persons joint voluntarily to fulfil their social and economic needs and aspirations through a jointly owned and democratically controlled enterprise. The cooperatives are profit making organisations, however,

at the same time, the cooperatives are also known as non-profit organisations since all the profits are given back to its members. In term of ownership, it does not require shares as evidence of ownership. As an organisation, the design and structure of cooperatives is comparable to the private and public organisations. In term of the managerial level, cooperatives consists of three categories of management level which are, the lower level managers, middle-level managers and top level managers.

Likewise, the top-level managers are responsible for setting up organisation goals and direction and identifying strategies to attain it. In relations to business organisations, the Board of Directors (BoD) is considered as the top level managers. However, for cooperatives, their BoD is known as Cooperatives Board Members (CBM). In the business organisations, the BoD is appointed based on the numbers of share owns by the shareholders. The numbers of shares possess by the shareholders grant them more voting power during the AGM. However, in the cooperatives, the members of CBM are elected based on the majority votes received during the AGM. In addition, regardless of how much money the member had contributed to the cooperative, each member has equal voting rights. Then, the scope and responsibility of the CBM are comparable to the BoD in the business organisations.

Since there is dissimilarity of the process of selecting board members between CBM and BoD, this research investigated the association between the human capital of CBM and cooperatives performance. Moreover, inconclusive findings between the said relationship discovered by previous researchers who did studies in non-cooperatives sectors (e.g. Hitt et al., 2001; Abdel-Aziz et al., 2010; Carlos & Miguel, 2013), signifies the importance of this research. From the extensive review of empirical literature, majority of the previous studies had concentrated on the non-cooperatives sector. Looking at the importance of human capital especially among the CBM as highlighted by the Malaysian Government as 3rd Strategic Pillar in National Cooperatives Policy (2011-2012), this study examined whether there is positive and significant relationship between CBM's human capital and cooperatives performance or not. As a result it is hypotheses that:

*H1: Human capital has a positive and significant relationship on cooperatives performance.*

## RESEARCH METHODOLOGY

The population of the study is cooperatives that are registered with the Malaysian Cooperatives Societies Commission (Suruhanjaya Koperasi Malaysia, SKM) in Peninsular Malaysia. Until 31 December 2017, the population of cooperatives in Peninsular Malaysia were 11,076. Hence, the sample size of the study is 370 cooperatives as suggested by Krejcie & Morgan (1976) and Sekaran (2000). The simple random sampling is applied, and the respondents are cooperatives chairmen, deputy chairmen, secretaries and treasurers. These positions are assumed to be the most knowledgeable and capable persons in the cooperatives as suggested by Dzulkarnain (2014).

A set of questionnaire was developed and mailed with a self-addressed reply envelope to the selected respondents. According to Sekaran & Bougie (2010), the maximum percentage of response rate from mail is 30%. To get many responses that are in-line with the suggested number of the sample size of 370 respondents, the researcher has mailed the questionnaire to 1,230 respondents. The questionnaire contained items of question-related to human capital and cooperatives performance. The human capital is measured from three dimensions namely;

competency, working experience and education (Aryee et al., 1994). The respondents were requested to answer four items relating to education and work experience, and four items relating to competence. All the items were adopted from Carmeli & Tishler (2004). These items also have been used by several researchers such as Castro & Saez (2008) and Ramli et al. (2014; 2017). The Cronbach Alpha for this measure is 0.910.

The measure for cooperatives performance is from several sources. It consists of seven items that cover several aspects, such net revenue, gross profit, net profit, annual sales, internal financing derives from profit, dividend payout, and social responsibility (Noordin et al. 2012, Indar. 2006, Dzulkarnain, 2014). The subjective measure is applied where the objective measure is impracticable. This measure has Cronbach Alpha at 0.914. The itemised rating scale is 6 point scale ranging from 1= strongly disagree to 6=strongly agree.

## RESULTS AND DISCUSSIONS

This research has distributed 1,230 questionnaires to the randomly selected cooperatives, and the respondents returned 154 responses. The response rate of this study is 41.6% which is higher than the 30% of the response rate from mail survey as revealed by Sekaran (2000). Therefore, Table 1 illustrates the response rate of the study.

<b>Subject</b>	<b>Response</b>
Sample size	370
Number of questionnaires delivered to the respondents	1,230
Number of questionnaires received from the respondents	154
Number of questionnaires that can be used for analysis	135
Percentage of return questionnaires to sample size	41.60%
Percentage of usable questionnaires	36.50%

The screening and cleaning procedures have been carried out to ensure the data is away from mistake and typo errors. The outliers are treated by observing the box plot and z score test. The acceptance range of the z score is between -2.5 to 2.5. Then, the normality test is conducted, and the value of skewness and kurtosis of human capital and cooperatives performance is in between +2 to -2 as shown in Table 2. It is considered that the data in this study is normally distributed.

<b>Variable</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Skewness</b>	<b>Kurtosis</b>
Human Capital	4.3417	0.66446	0.883	0.183
Cooperatives Performance	4.0889	0.79307	-0.301	0.057

Before further the main analysis, factor analysis was conducted to test the constructs validity of the instruments. Factor analysis is a method used to determine the accuracy of items used in measuring the constructs of a study (Hair et al., 2006). Table 3 illustrates the results of the factor analysis for human capital.

Items	Factor		Community
	1	2	
A1	0.768		0.715
A2	0.875		0.825
A4	0.801		0.774
A5		0.794	0.817
A6		0.894	0.799
A8		0.667	0.794
Eigenvalue	2.888	1.036	
Peratus varians (%)	48.125	17.266	
Kaiser-Meyer-Olkin of Sampling Adequacy (KMO)			0.729
Bartlett's Test of Sphericity Approx. Chi Square			243.87
df			15
Sig.			0.001

Previously, the human capital consists of 8 items that cover three dimensions namely competency, working experience and education. However, Varimax rotated principle components results identified two factors. These factors were renamed as experience, education and competency. Two items have been excluded due to factor loading below 0.5. This results is accepted as the KMO value is 0.729 and Bartlett's test of sphericity is significant (chi-square=243.870,  $p < 0.001$ ) as stated by Hair et al. (2009).

Items	Factor		Community
	1	2	
G3	0.928		0.902
G1	0.913		0.924
G5	0.892		0.865
G4	0.814		0.67
G2		0.930	0.894
G6		0.921	0.936
G7		0.896	0.832
<i>Eigenvalue</i>	4.393	1.629	
Peratus varians (%)	62.759	23.269	
Kaiser-Meyer-Olkin of Sampling Adequacy (KMO)			0.780
Bartlett's Test of Sphericity Approx. Chi Square			1032.077
df			21
Sig.			0.000

Based on Table 4, varimax rotated component indicated two factors, or in other words, the cooperatives performance is consists of two dimensions. Previously, the seven items of

cooperatives performance are treated as a unidimensional construct. The two-dimension have been named as financial and social dimensions. No items were dropped from the analysis, and these results are accepted as it fulfils the requirements as stated by Hair et al. (2009).

### HYPOTHETICAL TESTING AND DISCUSSION

The Pearson correlation test was conducted to determine the relationship between human capital and cooperatives performance. From the analysis, the direction and strength of the relationship could be identified. According to Cohen (Pallant, 2005), the strength of such relationships can be identified by examining the correlation coefficient (Table 5).

<b>Correlation Value</b>	<b>Relationship Strength</b>
r=0.10 to 0.29/r=-0.10 to -0.29	Weak
r=0.30 to 0.49/r=-0.30 to -0.49	Moderate
r=0.50 to 1.00/r=-0.50 to -1.00	Strong
Source: (Pallant, 2005).	

Based on the findings in Tables 6 and 7, it is indicated that human capital has a positive and significant relationships with cooperatives performance ( $r=0.540$ ,  $p<0.001$ ). Hence, the hypothesis H1 is accepted. Therefore, going by Cohen (Pallant, 2005) criteria, there is a strong relationship between human capital and cooperatives performance. This suggests that the possibility of a positive effect of human capital on cooperatives performance is highly possible.

	<b>Human Capital</b>	<b>Cooperatives Performance</b>
Pearson Correlation	1	0.54**
Human Sig. (2-tailed)		0.001
N	135	135

<b>Hypothesis Statement</b>	<b>Hypothesis result</b>
H1: Human capital has positive and significant relationship with cooperatives performance	Accepted

Next, the study tested how far the independent variable affects the cooperatives performance. This can be seen through the linear regression test between human capital and cooperatives performance as shown in Table 8.

<b>Variable</b>	<b>B</b>	<b>SEB</b>	<b><math>\beta</math></b>	<b>t</b>	<b>p</b>
Outcome: Performance Constant	1.473	0.358		4.118	0.001
Prediction: HC	0.605	0.082	0.540	7.407	0.001
R <sup>2</sup>	0.292				
Adj. R <sup>2</sup>	0.287				
F	54.866	p=0.001			

The linear regression tests have been performed on human capital and cooperatives performance. The results from the analysis as in Table 8 shown the R<sup>2</sup>=0.292, Adjusted R<sup>2</sup>=0.287, F=54.866, p<0.005. This indicated that human capital explains 29.2% of the variance in cooperatives performance. According to the regression test, the human capital significantly predicted cooperatives performance F=54.866 p<0.05. The regression equation for the test is as follows: cooperatives performance=1.473+0.605HC.

Consequently, the findings supported the previous studies, which also found a positive and significant relationship between human capital and organisational performance in a non-cooperatives sector (Abdel-Aziz et al., 2010; Ahmed & Ahmed, 2007, Carmeli & Tishler, 2004; Cater & Cater, 2009). This suggests that in general, the human capital of CBM is one of the vital cooperatives resources. The human capital of CBM is found to be a significant predictor of cooperatives performance as well as for other types of organisations.

The CBM was elected in the meetings of the cooperatives. Therefore, the role of cooperatives members in this regard is crucial. Selection of CBM must be based on competency, experience and level of education rather than an unreasonable basis. If CBM selection is not based on their ability and capabilities, then any action that is to be taken by the CBM perhaps might negatively affect the cooperative itself, or specifically, this could ultimately lead to negatively impact on the performance of the cooperatives.

The chairman and CBM should seize the opportunity and implement effective strategies and these would only be possible if CBM has experience, education and competent in human capital development and management. Cooperatives Colleges of Malaysia should also organise numerous courses to improve the human capital of CBM. The CBM itself need to voluntarily initiate various training, courses and seminars which in return could improve their human capital, which would undoubtedly drive and lead cooperatives to achieve a better performance. Formally, CBM is encouraged to attend training, seminars and courses organised through various government agencies such as Cooperatives College of Malaysia, Malaysia Cooperatives Societies Commission and Malaysian National Cooperatives Movement (ANGKASA).

Similarly, education is one of the critical aspect that needs to be emphasised to build the CBM human capital capabilities. Knowledge acquired through education can equip an individual with right skills and cooperatives members with the right skills that may result in the improvement of cooperatives performance (Abdel-Aziz et al., 2010; Ahmed & Ahmed, 2007). As education is one of the essential dimensions in human capital, Cooperatives College of Malaysia and Malaysian Cooperatives Societies Commission have to play their roles in providing training, courses and seminar to the CBM. The CBM consists of members from the various educational background, and these efforts may result in the uniformity of level of



education among CBM. Therefore, every and each of the cooperatives may have equal chances to succeed.

In addition, working experience is essential because through work experience it can make each of the CBM to be productive. Work experience may build up useful skills which cannot be learned in the classroom. According to Madsen et al. (2002), working experience provides the “*know-how*” to an individual. Through their work experience, CBM could also be able to accomplish any tasks given to them in their respective cooperatives. Likewise, an individual with working experience usually has better networking than an individual who does not has it. Working experience may connect an individual to many people who could be of help or advice to their cooperatives. The “*know who*”, in many cases has trumped the “*know how*” since members in networks may provide support, assistance, advice and resources on how certain things should be done. If these occur, it may lead to a better cooperatives performance.

Regarding the dimensions of human capital, which are competency of the management team (in this context Cooperatives Board Members), according to Husein & Sharif (2008), the key to success for all type of organisations (social or for-profit) is motivation. SKM (2010) has also outlined that in the appointment of cooperatives administrators, it is essential it consist those who are competent in performing their duties. It means that individuals who are fit, capable, proficient and determine to lead individuals or a group of individuals to the level of effectiveness. Therefore, enhancing competencies allows an organisation to remain adaptable and competitive, ultimately lead to a better performance.

Finally, the findings also emphasise the importance of human capital as a significant component of cooperatives internal resources to gain competitiveness and achieve good performance. If Cooperatives Board Members possess tremendous human capital, they are more likely to make decisions more effectively and efficiently for the cooperatives. As a result, it lead to the success of the cooperatives. In the same line, human capital elements have been seen unidimensional in which to acquire good human capital, and it requires a combination of whole human capital dimensions. Especially, when the cooperatives look into empowering the Cooperatives Board Members’ human capital through knowledge and practising for the advancement of cooperatives. Cooperatives College of Malaysia and Malaysia Cooperatives Societies Commission have been appointed in the effort to strengthen the cooperatives as well as bring the cooperatives sector to a level that can boast the country’s economy and become one of the critical sectors for national development.

## CONCLUSION

This study investigated the relationship between human capital and cooperatives performance. The results of this study indirectly contribute to new antecedents and help researchers to understand cooperatives performance indicators. Also, this study also contribute towards literature review in the cooperatives research and help to consider intangible resources to improve cooperatives performance. Since studies involving cooperatives are still rare, especially in Malaysia. In particular, it is hoped that this study would contribute to the theoretical understanding of the relationship between intangible resources and cooperatives performance and can be used as a guide to cooperatives driving force. The findings of this paper also be used by Cooperatives College of Malaysia and Malaysia Cooperatives Societies Commission where these agencies help to enhance the image and the performance of the cooperatives in Malaysia.

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