# Analysis on the Competency of School Cooperative Board Members in Malaysia

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#### **ABSTRACT**

This paper explored the board members competencies of school cooperative in Malaysia. Questionnaires were distributed using the stratified random sampling method to obtain the perception of respondents from school cooperatives. For identification of the competency, the survey method is adopted and a total of 586 questionnaires were collected from individual respondents (Board Members) representing 100 selected Grade A school cooperatives. A response was then analyzed using descriptive analysis. The result of the study shows the level of competency among Board Members has a gap that means they have low competency in discharging their duties as board members of school cooperatives.

Keywords: School cooperatives, Competency

#### INTRODUCTION

School cooperative was first introduced in this country since the 1965 from the bright idea of YM Prof. Royal Ungku A.Aziz through the establishment of University of Malaya Bookshop Cooperative. Establishment of school cooperative is a new management dimension in the school environment (Rohayati, 1998). From that day on, the school cooperative were established and then the Ministry of Education Malaysia (MOE), had recognized the importance of school cooperative movement as an effective coupling between the academic and curricular activities of non-academic curriculum in line with education policy 1979.

School cooperatives aims to train the students to practice the thriftiness and living principles of a democratic society while being self dependant towards excellency in any field they embark (Jabatan Pembangunan Koperasi Malaysia, 1994). School cooperatives are not expected to contribute to the National Gross Domestic Product

(NGDP) toward the achievement of 10 percentage allocation in the year 2020. But within the same period of time, the school cooperative also has a role to be achieved as what it had been stated in Education Policy 1979 such as activities outside the classroom to reach, nurture and grow the cooperative environment or 'espirit de corps' among students of various breeds, backgrounds and ways of different life rather than to train students to be disciplined, self-reliance and well knowledgeable in the filed that they participate.

School cooperative has received various attentions from many parties which it is suggested that the need for the establishment of the school cooperative at primary schools level. This idea has been reviewed by the Minister of Education in the Utusan Malaysia newspaper on May 25, 2011 in which he said that there should be further discussions and a detailed study on the idea of establishment of cooperatives at the primary schools. Although the idea that the goal is to cultivate a culture of business and entrepreneurship as early as primary school he did not want the management of school cooperative burdens the teachers who are in-charge of the school cooperatives.

Based on the statement above, the function of school cooperative is not only to nurture the entrepreneurial spirit at the school level but its even up to the level of the economy. Looking at the inspiration for cooperative education in school and the inspiration of economy that trying to put forward in school cooperative, there could be a clash in role of cooperatives administrator. The focus of each perspective will lead to the preparation of plans and different strategies. The performance of the school cooperatives will create much differences in comparison to school-oriented cooperative which focuses on social development and economy-oriented school cooperative. The success of these cooperatives depends on the support and interest of the school and their head principal as well as their school teachers. Teachers in the school cooperative are seen as an enabler to the success of the government's intention to make the cooperatives as the third sector. This will pressurize the Board of Cooperative because instead of teaching they have to make sure the cooperative that they lead is a success cooperative. In the scenario of the current cooperative, the cooperative recognition of the best schools are also based on the achievement of the highest economic revenue as adults or complex cooperative.

# PROBLEM STATEMENT

No matter what role that should be portrayed by teachers, school cooperative is bound by its laws. Teachers are given the mandate to hold positions as a Board are still subject to the liability provisions of the Ministry of Education. The question is, how much could the Cooperative Board comprising school teachers could take up the responsibility and burden of other duties other than teaching. In this environment, only the competent Board can make a change or improvement in school cooperatives to achieve its objectives. Therefore, this research attempts to uncover the level of competency of teachers to be cooperative Board and identify competency gaps among them.

### **OBJECTIVE**

This study aims to identify factors that influence the success of the cooperative as a measure of competency elements and measure the level of competency and competency gaps between Boards.

#### LITERATURE REVIEW

Early establishment of cooperative idea is from lingering title of Royal Professor Ungku A. Aziz, while he served as Vice Chancellor of the University of Malaya. His aims were recorded in his biography has encouraged the establishment of a cooperative student body on October 20, 1966 at the Campus of the University of Malaya and the subsequent cooperative bodies of other students (Salbiah, 1994). Further to Ungku ideas, the Cooperative Movement School opened its inception on May 29, 1968 to try it out (pilot project) in nine secondary schools (ANGKASA, 1992). Given the success of the cooperative is to increase good from year to year, then a development plan has been arranged.

Until June 30, 2011 there were 2,161 registered cooperative with a membership of 2,072,979 people, capital shares or shares worth RM 18,383,765.00, procurement RM 178,704,469 and profit of RM 23,521,163. Although some of these cooperatives in the small category which has a turnover of RM200,000 to RM1 million, but the average achievement of school cooperatives belong to the micro cluster. Cooperative general statistics by state are shown in Table 1 below:

All business organizations need management, efficient and effective way to achieve the objectives of its business. Similarly, school cooperatives, management, efficiency and competence among Board are very important to achieve the objective effectively. As stated in the Laws of the Cooperative School (1993), the Board of School Cooperative shall contain six and not more than fifteen members who are elected by the general meeting. According to section 42, the Cooperative Act (1993) and paragraph (d) clause (1) by-law 32 is as follows:

Table 1: General Statistics School Cooperatives by State until June 30,2011

ON	STATES	COOPS	MEMBERS	SHARE & FEES	ASSETS	TURNOVER	PROFIT AND LOSS
	JOHOR	240	264,293	1,719,380	27,235,806	27,685,361	3,248,573
2	KEDAH	170	165,087	1,540,992	18,714,518	12,510,713	2,220,966
3	KELANTAN	146	183,765	1,263,123	10,031,972	12,121,745	1,142,224
4	MELAKA	80	77,746	715,192	9,108,369	6,416,553	918,756
5	NEGERI SEMBILAN	115	115,065	978,333	10,738,196	871,311	1,451,156
9	PAHANG	180	112,430	1,363,018	11,929,028	8,096,890	1,051,165
7	PERAK	231	158,662	1,783,964	19,837,303	17,883,008	2,211,952
∞	PERLIS	29	29,440	161,366	2,291,625	1,357,808	547,925
6	PULAU PINANG	125	66,443	1,211,251	11,415,434	13,296,475	1,718,305
10	SABAH	174	152,707	1,229,798	8,654,939	9,780,473	993,105
11	SARAWAK	176	213,883	1,317,540	20,464,131	18,407,360	2,931,260
12	SELANGOR	254	324,990	2,801,243	19,945,740	17,909,837	2,382,664
13	TERENGGANU	142	105,493	1,289,868	12,955,390	17,096,832	1,926,821
14	WILAYAH PERSEKUTUAN	66	102,975	1,008,697	8,237,655	7,270,103	776,291
	TOTAL	2,161	2,072,979	18,383,765	191,560,106	170,704,469	23,521,163

- a) The Principal or a Senior Assistant Principal nominated by the Principal should be a Chairman of Cooperative
- b) Teachers or staff; and
- c) Student

### COMPETENCY

Dubois (2004) says competency is owned by the individual characteristics used as appropriate and consistent in order to achieve the required performance. Features include knowledge, skills, and aspects of the self image, social motives, personality, mindset, mindset and way of thinking, feeling and action.

Yong (2005) also says competency is the attitude and ability that allows an employee to complete a task properly. Furthermore, Hellriegel (2005) defines competence as a combination of knowledge, skills, behaviours and attitudes that contribute to effective working.

# **Board Members Competency Requirements**

Members of the Board are a management team that is very important in the success of the cooperative. The National Council for Voluntary Organizations (2005), in their research on the board of a non-profit organization (non-profit organization) says there are six areas of competency that Board members can make a difference to the performance of one organization to another. Such as:

- Dimensions of Organizational Context Board member starts with understanding the organization and its relevance. It is not sufficient if the Board members have the expertise of some of the things in the organization. Board members must take care of the self and the organization as well as an overview of the organization and the reason is established, the community and the presence within the organization and all trustee.
- ii. Dimension of Education Board member with information is an effective Board member, therefore education is a continuous process. Information sharing system should be established to ensure that Board member is cognizant of the activities of the organization and responsibilities of the Board. Board members must continue to look for opportunities to learn and train themselves in various ways such as getting a briefing from the employees.
- iii. Dimensions of Interpersonal Board members are usually made up of individuals with different skills and management abilities. However, the Board effectively

- does not allow individual personalities as smart and as good as any way dominating processes. Instead it encourages joint decision, teamwork and sharing purposes. This creates togetherness in the success and mission.
- iv. Dimension of Analytical Board members needed to look at the situation and solve analytically. This allows them to see the difficulties faced and looking from different perspectives.
- v. Dimension of Political One of the important responsibilities of the Board members is to develop and maintain healthy relationships between organizations, members, volunteers, clients, government agencies and community groups. Nourish Board members that nourish the politic awareness will respect the integrity of the Board Members governance process, do not allow individuals or groups within the Board to interfere with the board leadership. At the same time, Board Members respecting the power of the workers and not interfere in areas where employees have the freedom to make decisions.
- vi. Dimensions of Strategic This is the biggest challenge to the concept of members of the Board. Board to look at and nudged the organization, dictating mission and carry it to the future and is responsible for the success or failure in the long run.

According to this study, the Board developed a competency in six areas, have the ability to shape its organization with quality leadership. Members of the Board who are constantly improving their leadership skills can bring the organization more successful in operating income, net income, property institutions, financial reserves and investment rate in the area of service.

# **Approach in Developing Competency Model**

There are several approaches that can be used in identifying and developing a competency model for a target group. Dubois (2004) suggests three approaches in determining competency. Those are:

- a) Approach to Job Competency Assessment (JCAM: Job Competency Assessment Method)
  - JCAM is a way to provide information to employees and work they do. It can produce high-value valid and reliable competency model. This way depends on the collection and analysis data through the process of interviewing. In this interview, interviewer were asking detailed questions about the actions job done, whether seen as a successful job or less successful work, in addition to required to express an opinion and feeling for the work. Identify the unique characteristics of the performance of the extent can be emulated, and is the main objective of this approach.

# b) Competency Menu

This methodology relies on a list of competencies from private sources and public sources. A menu will be created from the list and the menu used to identify the competencies required for a job in an organization. The menu is also available from general channel such as the internet channel. Competence made this way can be arranged in various ways, depending on the needs and priorities of the organization. It can be arranged according to the job, office or work. To consolidate a list taken from the menu, some can be used as a way to restructure cards, focus groups, questionnaires or a combination of these methods.

#### c) DACUM

DACUM is meant "Development of Curriculum" or development curriculum of the job analysis process, which depends on the input from focus groups conducted with discipline, to gather information, analysis and presentation of results. This approach is done by collecting skilled in the subject. They will be asked to describe the activities of the work done for achieve the required result. This approach will provide an understanding of the business needs organization and the effects of the project in term of activities, tasks, duties or competencies for getting successful performance.

For this study, a modified integrated approach based on three methods has been used to identify competencies for school co-operative boards. Competencies identified based on a formula highlights on previous research or writing, analysis of a list of functions and tasks, as well as feedback from their experience in concerned through interviews, focus group discussions and questionnaires study.

# **Analyzing Approaches to Competency Gap**

This study also aims to identify the existing level of competency among board members school cooperative in Malaysia. This helps the process of analyzing the competency gap, the comparison between the competencies required and the competencies available. Result competency gap analysis is important to identify and recommend strategies and action plan for the development of school cooperatives.

Dubois (2004) states, before the competency gap analysis is done, the information work with data that is valid and reliable to be held. This information is including the expected competencies required to do the work in organization. Competency can also be measured through many ways. One way is to identify behavior or work produced or shown in duties. Behavior is an action that can be seen and taken to reach work or something that contributes to the achievement of results. Behavior can be defined as actions that can be observed, described and validated. Competency can also be measured through indicators behavior. Clues about the behavior or action is the action group can be seen and observed when an employee successfully using the competency to do their work. Competency analysis process is to identify the employee, in the context of performance competencies which have strategic interests owned by the experience in performance and strength of performance.

Among the usual approach in the assessment of competency are:

- 1. Self-Assessment
- 2. Evaluation by Supervisor
- 3. Peer Assessment
- 4. Evaluation Specialist Job
- 5. Customer Rating
- 6. Certified or Licensed Evaluation
- 7. Assessment Centre

For this study, with time limitations, existing competency assessments have been done through the concept of Self Assessment when respondents were fill up the provided questionnaires.

### RESEARCH METHODOLOGY

This study is a quantitative survey. This study was done on the Cooperative School Board Members in 100 Grade A schools in Malaysia. The study set out selected cooperative criteria must be in operation for five years and above, and have incomegenerating economic activities of cooperatives. Questionnaires were sent to all 100 cooperatives. Grade A schools had been chosen by stratified random sampling. Each cooperative is provided with six copies of the questionnaire and to be filled by six Boards. This number is the total number of teachers appointed by the general meeting as provided in law school cooperatives. The researchers had appointed one of the Boards as enumerators to collect the required data.

The developed questionnaire has listed 18 cooperatives competence factor required by Board and Board's competency achievement. All the competence factor required are measured using a scale from (1) Extremely Unimportant (4) Extremely Important. Meanwhile, the level of competency achievement of the Board are measured using a scale from (1) Highly Skilled to (4) Highly Skilled.

The collection of primary data in this study on average takes at least 2 months even though the period of time granted to the respondent to return the questionnaires will be 3 weeks from the date of issuance of the letter. The research team has made a follow-up by telephone to each school to ensure questionnaires were completed and sent back to the CCM. Out of 600 questionnaires were sent and 586 were received and used for the overall analysis of this study after a process of "data cleaning" which shows the percentage of 97.7 percent

The data collected were analyzed using descriptive analysis method. Descriptive analysis is the most appropriate for identifying competence Cooperative School Board Members In 100 Grade A School in Malaysia.

#### ANALYSIS AND DISCUSSION

#### Respondent's Profile

Table 2 below shown, majority of the respondents are the regular Board member in school cooperatives (53.2%) and the greatest number of female teachers holds position as a Board (74.4%). In terms of age, more than half aged 21 to 40 years (58.4%), and educated Bachelor and above (96.1%).

While for the majority of subjects taught by these teachers are mathematics (18.8%) and subjects of Literature is the lowest percentage (3.2%) and teach in the morning session (84.5%). For involvement in co-curriculum activities (67.7%) were involved with the association / club.

More than half (54.6%) had held the position for three years or fewer as a Board while the majority who are appointed or nominated by the school (68.9%). Most of the Board has been appointed still willing to remain (60.6%) as the Board if given the opportunity in the future. Teachers who served as Board more than half did not receive any remuneration / allowance during the current position (58.5%) and the lowest is received monthly allowance only (6.5%).

Most board stated that they never attend courses and training directly related to the cooperative at MKM, SKM or in other places with a percentage of (80.2%, 70.8%) and 93.5%). Most of them just follow the courses and training of ANGKASA from 1 to 5 courses (56.5%).

Most of the Board who had have undergone training courses related to the management and administration of cooperatives (53.4%) and the lowest percentage of courses based

on information technology (7.8%). Board also want to participate in other courses in the future such as management and administration of the cooperative, information technology, personal development and motivation and job functions (eg project management, product marketing) courses where the percentage shown is close to each other (35.5%, 35.3%, 33.8%. 30.4%).

Table 2: Demographic Background of Respondents

Variable	Category	Total	Percentage (%)
Positions	Board Members	312	53.2
Age	21 - 40 Tahun	342	58.4
Education	Degree and above	563	96.1
Subject taught	Mathematics	110	18.8
	Literature	19	3.2
Teaching session	Morning	495	84.5
Co-curriculum activities	Association / club	397	67.7
Held the position	3 years and below	320	54.6
Appointed by	Appointed or nominated by the school	404	68.9
Remain as a Board	Willing to remain	355	60.6
Allowances	Did not receive any remuneration / allowance	343	58.5
	Monthly allowance	38	6.5
Courses in MKM/SKM/ Others	Never attend courses and training directly related to the cooperative at MKM, SKM or other places	112/415/548	80.2/70.8/ 93.5
Courses in ANGKASA	1 to 5 courses	331	56.5
Undergone training courses	Management and administration of cooperatives	313	53.4
	Information technology	46	7.8
Training courses needed	Management and administration of cooperatives	208	35.5
	Information technology	207	35.3
	Personal development and motivation	198	33.8
	Job functions (eg project management, product marketing)	178	30.4

# Competency

There are 18 important factors competencies needed among the cooperative board. The highest mean value was taken for measuring the competence factor required by board. Cronbach's alpha values for all instruments competency factor is 0.958.

The competencies factors using the 4-point Likert scale ranging from (1) Extremely Unimportant to (4) Extremely Important. For the purposes of this analysis, competency factors show the mean at least 3 on the Likert Scale means the respondents said that the factor is an important factor that should be required by the Board. Meanwhile, the competence factor that shows the mean value between 1 to 2, is the factors are considered unimportant by the Board.

Factors competencies needed by Board is financial management with a mean 3.62. The second factor is the mean value of self-discipline with 3.60, followed by the third factor, time management work and the willingness to accept the responsibilities with the respective mean value of 3.59. While the fifth is a competency factor in business management with a mean value 3.56. That understanding the laws of the society, understanding of cooperative governance rules, willing to change and has entrepreneurs characteristics is the sixth factor required by the Board with mean 3.51. The tenth factor is emotional stability with a mean of 3.49. The others competency factors shows mean values above 3.00 and these factors are required factors of cooperative Board.

Based on the competence factor required by the school cooperative Board, the level of achievement of competence factors are examined using descriptive method and the highest mean score was taken to determine the level of competence achievement by the Board. Cronbach's alpha values for all these factors instrument competency achievement is 0.981.

Competency achievement levels is using 4-point Likert scale ranging from (1) Highly Unskilled to (4) Highly Skilled. For the purposes of this analysis, competency achievement which shows the mean value at least 3 on the Likert scale means that the respondents are well versed in the required fields. Meanwhile, competency achievement which shows the mean value between 1 and 2, which means the respondents are not proficient in the required fields.

Achievement level of competency among Cooperative Board shows that they are not proficient on the 18 competency factors with the percentage more than 75 percent respondent were answered the scale of 'very skilled' and 'unskilled' workers. If viewed from each competency factors, factors in the top level of competency achievement are the discipline factor with a mean 1.87. Followed by the second factor is the management of work and the time and willingness to accept the responsibility of the respective mean value is 1.84. The fourth factor is set to change with the mean value of 1.78 and fifth factor is the emotional stability with a mean of 1.76. Meanwhile, the competence factor among Cooperative School Boards from sixth to eighteenth shows the mean value in the range of 1.50 to 1.71. However, the overall cooperative Board is not competent in carrying out their duties as the Board.

# **Competency Gap**

The cooperative Board competency gaps obtained based on the mean 'Current Level of Achievement' (LOA) is the level of competence and 'Level of Required Achievement' (LOR), a level of competency importance. The difference between LOA and LOR showed negative value means it shows competency gaps. Competency factors indicate that the biggest gap is the understanding of the laws of the society and understanding of co-operative governance rules with each gap value -2.01. Followed by the understanding of cooperatives act and the understanding of cooperatives laws with the gap -1.98 and business management factors that show the gap -1.94. Other competency factors showed the gap between -1.92 to -1.73.

The overall level of competence among School Cooperative Board has a negative gap value of current competency level is less than the required level of competency. This shows that the cooperative Board is incompetent in every competency factor.

There are suggestions from respondents to improve the competency of school cooperatives Boards in which the Boards are required to attend courses relevant to the duties and functions to improve the level of competency among them. Further recommendations are the use of ICT tools in the cooperative. Retention in office for three years did not get the consent of the respondent, and it is not a factor for evaluating competency. In fact, a major factor contributing to the competency of the Board is attending courses appropriate to their duties and functions.

Feedback results and recommendations made by the management of cooperatives, there are several agencies and cooperative movement itself should involve to raising the level of competence among cooperative Boards. The suggestions that are put forward are as follows:

1. Ministry of Domestic Trade, Cooperatives and Consumerism (MDTCC), Ministry of Education (MOE), the Cooperative Commission of Malaysia (SKM)

- The school principal is exposed to the principles and benefit of cooperative school and the importance of cooperatives in the national economy.
- MOE and SKM cooperate in issuing a directive to each Board compulsory school course at least seven days in a year in the field of cooperatives.
- SKM needs to create a platform for School Cooperative to hold regular meetings and discussions between the co-operatives.
- Ministry of Education (MOE) issued a circular that Board consisting of teachers will be given a reduction of teaching hours in order to be able to work as an orderly Boards.
- 2. Cooperative College of Malaysia (CCM), National Cooperative Organization of Malaysia (ANGKASA)
  - CCM and ANGKASA need to provide suitable courses for school cooperative movement based on competency model school.
  - CCM and ANGKASA should evaluates the level of competency of the Board before and after the courses.
- 3. School Cooperative Movement
  - Principals need to release teachers(Board) to attend courses and doesn't waiting for the school holidays.
  - Send the Boards for appropriate courses related to their job function.
  - Appointing a Board at a general meeting must be a competent person in their duties and responsibilities entrusted.
  - Choose and appoint Boards for full time service.
  - Enhance knowledge and ICT apply in cooperative business.
  - Provide monthly allowances for all Boards of school cooperatives.

#### **CONCLUSION**

This study aims to identify the competencies of School Cooperative Board Members. The findings shows 18 competency factors should be given training and guidance to each Boards. This study can also be helpful in providing a true picture of the current conditions and problems faced by the Boards in carrying out their duties to the implementing agencies and school cooperative movement itself. It also can help school cooperatives in the future and formulate more comprehensive strategy to remain competitive and sustainable. Recommendations presented in this study involves various effort and proactive measures that can be implemented by the agencies to strengthen the growth and development of the school cooperative movement.

Based on the analysis on the competency of school cooperative's board, the gap found in this study should be emphasized by providing training, skills and knowledge to every Board so that the leaders who leads the school's cooperative will be vast knowledgeable in cooperative. This study indicates that although the teachers are educated, but when they are given the responsibility in the field of co-operatives, their knowledge is very shallow and should be given a lot of exposure because they are the leaders of the cooperative.

# REFERENCES

- Angkasa. (1992). School Cooperative Management and Administration. Division of Education, Information, Publications and Services. ANGKASA.
- Cooperative Act 1993 (Act 502) & Regulations. (2011). International Law Book Services.
- Cooperatives Commission of Malaysia. (2010). School Cooperative Data until June 30, 2010. (By email). SKM.
- Dubois, D.D. (2004). Competency Based Human Resource Management. California.
- Hellriegel. (2005). Management: A Competency Based Approach. Singapore.
- http://www.ncvo-vol.org.uk/.
- Jabatan Pembangunan Koperasi. (1994). Cooperative Seminar: The role and involvement of the government in the School of Cooperative Development. ANGKASA.
- Rohayati Ismail. (1998). Cooperative Management Success Secondary Schools In Kubang Pasu, Kedah Darul Aman: An Analysis. Thesis. UUM.
- Salbiah. (1994). Working Paper. Effective School Leadership Cooperative. ANGKASA.
- The National Council for Voluntary Organization. (2005). Six Key Competencies Which Lead to Board Excellence. Retrieved on 30 Januari 2011, from
- Utusan Malaysia. Kaji Tubuh Koperasi Sekolah Rendah. Retrieved on June 4, 2011, from http://www.utusan.com.my/utusan/info.asp?y=2011&dt=0525&pub=Utusan Malaysia&sec=Dalam\_Negeri&pg=dn\_28.htm.
- Yong, A. (2005). Strategic HR: Inventand Innovate. Kuala Lumpur.

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