

Co-operative Prospect for Generation Z in Revolution 4.0

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ABSTRACT

One of the most monumental effects of the industrial revolution 1.0 was the birth of the Rochdale British co-operative, the first modern co-operative worldwide. The industry continues to evolve, co-operatives continue to adapt, and the characteristics of the human generation continue to change. The Baby Boomers generation, generation X, generation Y, and generation Z experienced a change in the industrial revolution 4.0. However, no previous study has evaluated the perception of co-operative members with regards to how capable the co-operative structure is in empowering co-operative members based on the characteristics of the generation, despite the fact that this information is very important in the development of co-operatives today. This study aimed to determine the structural empowerment of co-operative members in terms of generation characteristics. Structural empowerment is the ability of individuals to use co-operative structures to achieve their goals. The co-operative structure referred to is the opportunity, information, support organizational resources, formal power, and informal power that can be utilized by members to develop themselves. To this end be conducted a survey by collecting data on the structural empowerment scale from 254 co-operative members; the measurement instrument was adapted from CWEQ-II. Data were analyzed using one-way ANOVA. The results showed that there were differences in the structural empowerment of co-operative members in terms of generation characteristics ($F = 2844$, $P = 0.04$). Generation Z had the highest mean (69.16), followed by generation X (66.66), generation Y (60.57), and the Baby Boomers (60.19). Therefore, it can be said that co-operatives have good prospects for generation Z in industrial revolution 4.0, although the number of co-operative members of this generation is fewer compared to that of generation X and Y.

Keywords: *Structural empowerment, co-operatives, generation characteristics, industrial revolution 4.0.*

1. INTRODUCTION

A Co-operative is a cross-generational movement, in which one of the crucial issues is how to pass down the co-operative movement between generations. Co-operatives are perceived by future generations of co-operatives as old-fashioned and outdated business entities (Wolz et al., 2009; Gomes, 2016). Indeed,

the new generation of co-operatives has lost the passion for co-operatives, and only lives up to co-operatives as business entities that provide the residual results of operations to members (Wolz et al., 2009). In the context of Indonesia, co-operatives are perceived as out of date business entities, although in some areas,

co-operatives with the Credit Union model are developing rapidly (Prayogo, 2019). In contrast, some of the co-operatives run by the young generation in Indonesia are still surviving, and even growing rapidly. The co-operative movement in the younger generation of Indonesia developed through both school (Suyuti, 2016) and student (Thoharudin, 2017) co-operatives, both of which can develop responsible attitudes. In this regard, the ability and skills of students can be utilized in an environment where the students can learn and develop the spirit of entrepreneurship (Suyuti, 2016).

Students who have been active in co-operatives within the past five years are known as the Z generation, who are literate in technological developments. It is very important to examine the perception of generation Z toward co-operatives and compare it with the characteristics of other generations, because the future of co-operatives lies with this generation. In the extra-high school and tertiary co-operatives, the number of generation Z and Baby Boomer co-operative members is less than those in generation X and Generation Y. The small number of school extras, and the positive results of school and student co-operatives are contradictory; thus, requiring further exploration of how the perceptions of co-operative members with regards to co-operative capacity can positively impact members, especially in generation Z. The purpose of co-operatives is to empower their members. This study aimed to explore the perception of co-operative members in terms of the ability of co-operatives to empower members based on generational characteristics.

The co-operative movement refers to the changes in attitudes and behavior of a group of people as a consequence of living up to the goals, principles, and values of co-operative (Birchall, 2011; William, 2007). These changes in attitudes and behavior first arose as a form of group response to changes in the socio-cultural environment due to the industrial revolution 1.0 and the poverty experienced in Europe in the 19th century (William, 2007).

Co-operative as organizations have existed since the 18th century, precisely in 1700 in England in the form of an insurance co-operative, while in 1750, there was a co-operative selling cheese in France. Although there were already co-operatives at that time, their influence was not as wide as the Rochdale co-operative in England founded in 1844 (Birchall, 2011; William, 2007) or the Credit Union founded by Raiffeisen in Germany in 1864 (Guinnane, 2012). The emergence of the Rochdale co-operative in the UK is known as the first emergence of a co-operative worldwide. The Rochdale Co-operative and the Raiffeisen Co-operative are better known because the birth of these co-operatives marked the birth of a co-operative movement which later spread throughout the world (William, 2007). In this regard, these two co-operatives first developed the principles and values of co-operatives, which were then adapted by various groups of people who connected with each other through transnational networks, now known as the International Co-operative Alliance (ICA) and the World Council of Credit Union (WOCCU) (ICA, 2019; WOCCU, 2019).

Twenty-eight poor weavers from the small town of Rochdale established an

association named "The Equitable Pioneers of Rochadale", which has the power to regulate production, distribution, and governance based on four basic characteristics, namely courage, common sense, patience, and a strong belief in self-ability (self-help) (Thompson, 1994). The concrete form of their enthusiasm and ideals has led to the implementation of several plans: 1). Set up shop that sells basic necessities such as food and clothing; 2) as far as possible, produce their own goods, sold, so that members have jobs and generate additional income; 3) provide land through rent or purchase to provide employment and additional income to members; 4) buy or build a house for members to earn a decent living in their own village by arranging the house or village by themselves; 5) manage trade, production, and distribution by organizing education for members; and 6) make other associations that have the same goal (Thompson, 1994). This joint effort is based on several principles, namely: 1) Honesty - the items sold must be original and in the correct scale; 2) selling in cash; 3) sales prices are in accordance with market prices; 4) the remaining results of operations are divided according to the amount of service utilization from members; 5) one member one vote; and 6) neutral attitude to politics and religion (Thompson, 1994).

The principles and values of co-operatives are internalized and implemented by members to empower themselves. Although the aim is to empower, no previous research has evaluated the perception of co-operative members of the capabilities of the co-operative to empower. Therefore, this study aimed to explore the members'

perceptions of co-operative capabilities to empower members based on generational characteristics. Since the 1.0 to 4.0 industrial revolutions are experienced by cross-generations, it is important to conduct research into the perception of members based on the characteristics of each generation: Baby Boomers, generation X, generation Y, and generation Z. The Baby Boomers were born in 1946–1960; generation X were born in 1960–1980; generation Y were born in 1980–1995; and generation Z were born in 1995–2010 (Andrea, Gabriella, & Timea, 2016). Experts explain the characteristics of each generation, and assume that the characteristics of each generation differs due to changes in social, economic and political situations (Singh & Weimar, 2017; Hansen & Leuty, 2012).

Kanter's structural empowerment theory can be used to measure the perception of co-operative members of the capabilities of co-operatives to empower members (1993). Kanter (1993) defined structural empowerment as a form of employee perception of the level of employee accessibility to all the resources of the organization that can be used to empower themselves. In more detail, these resources include access to opportunities, valuable information, support from colleagues, and access to materials that can be used by employees. In addition, access to power is based on authority that is formally regulated based on rules, or informally arising from relations with fellow colleagues and related parties. Lanschinger (2012) developed a structural empowerment measurement tool based on the Kanter's (1993) concept known as the Conditions of Work Effectiveness Question (CWEQ) I and II. This concept

has been studied in nursing (Aggarwal, Dhaliwal, & Nobil, 2018), education (Ahadi & Suandi, 2014), and banking (Jaffery & Farooq, 2015), but never in a co-operative context. Based on generations which have different characteristics, points of view, and behaviors, this research hypothesized that structural empowerment of co-operative members can be distinguished based on the characteristics of the generations.

2. METHODS

2.1. Study Design

The present study used a quantitative approach with survey methods. Data were collected using a questionnaire and were analyzed by one-way ANOVA.

2.2. Participants

This study involved 254 co-operative members who live in Sikka district, East Nusa Tenggara Province, Indonesia, as participants. The age range of participants was from 14–93 years old. Participants must have been members of the co-operatives for more than 1 year. All participants were members of the Credit Union, some of whom participated in the development of CWEQ-II measuring

instruments that were adapted in the context of co-operatives in Indonesia.

2.3. Measurements

The scale of structural empowerment in the context of co-operatives, adapted from CWEQ-II (Laschinger, 2012) was used as a measurement instrument. Scale validation was performed using Total Item Correlation and Confirmatory Factor Analysis (CFA), and the Alpha Cronbach was used as the scale reliability test. The original scale consisted of 19 items, but this was adapted into Indonesian and co-operative contexts, and finally modified to comprise 21 items. Participant were assessed on the five-point Likert Scale. The CFA results showed that 21 items have a Goodness of Fit Index (GFI): 0.91; Comparative Fit Index (CFI): 0.96, and Root Mean Square Error of Approximation (RMSEA): 0.05, with a loading factor ranging from 0.52 to 0.87. All sub-scales were shown to correlate ($p < 0.001$). The validity index of the structural empowerment scale is presented in Table I, and the reliability index of the structural empowerment scale is presented in Table II.

Table I. Validity Index of the Structural Empowerment Scale of 45 subjects

Aspects of structural empowerment	Total valid items	Index validity
Opportunity	5	0.41–0.81
Information	3	0.61–0.80
Support	3	0.65–0.84
Resources	3	0.51–0.62
Formal power	3	0.47–0.81
Organization relationships scale	4	0.62–0.88
Overall structural empowerment scale	21	0.42–0.76

Based on the above Table, the 21 tested items of the structural empowerment scale were declared valid.

Table II. Reliability Index of the Structural Empowerment Scale of 45 subjects

Aspects of structural empowerment	Alpha
Opportunity	0.86
Information	0.84
Support	0.85
Resources	0.75
Formal power	0.80
Informal power	0.84
Overall structural empowerment scale	0.94

Based on the above Table, it can be seen that the 21 tested items of the structural empowerment scale were

reliable. Data were processed using one-way ANOVA with SPSS 22.0.

3. RESULTS

Descriptive data on the results of the study are shown in Table III.

Table III. Description of the Research Subjects

Generation	N	Mean	SD	Min	Max
Baby Boomers	26	60.19	15.19	30	89
Generation X	106	66.66	19.69	29	105
Generation Y	92	60.57	19.03	21	99
Generation Z	30	69.16	19.59	31	96
Total	254	64.09	19.23	21	105

Descriptive data show that generation Z has the largest mean, followed by generation X, Y, and Baby Boomers. The

homogeneity test results indicate that the data are homogeneous. The explanation can be seen in Table IV.

Table IV. Results of Structural Empowerment Homogeneity Tests

Levene statistic	df1	df2	Sig.
1.379	3	250	0.250

Hypothesis test results with one-way ANOVA show that there is a significant difference in the mean on the scale of

structural empowerment of co-operative members with regards to the generation ($F = 2.765$ and $P = 0.04$) (Table V).

Table V. Results of Hypothesis Tests

	Sum of squares	Df	Mean square	F	Sig.
Between groups	3004.47	3	1001.49	2.765	0.043

Within groups	90564.44	250	362.25		
Total	93568.91	253			

4. DISCUSSION

The results of the current study demonstrate that the empowerment of co-operative members can be distinguished based on the characteristics of the generations. Generation Z has the highest mean score, which means that generation Z has a more optimistic perception of co-operatives than other generations. Generation Z knows, and is involved in co-operatives today, at a time when co-operatives have been developed rapidly, choosing a magnificent office, professional management, experiencing aggressive expansion, and massive advertising. Co-operatives in the Sikka district use traditional media, such as newspapers and radio, as means of advertising. In addition, co-operative advertisements can be found on Facebook and YouTube. Research by Coleman & McCombs (2007) proved that the easier the generation, the less likely they are to use traditional media, such as newspapers, television and radio, and instead, prefer to use the internet. Since generation Z uses the internet more than the older generations, it is easier to advertise co-operatives through the media, which in turn, leads to a positive perception of co-operative capacity for empowering its members. This is in line with the characteristics of generation Z who understand and master technology such that they are easily exposed to the advertisement and campaign of the co-operative movement (Berkup, 2014; Ghura, 2017; Dolot, 2018). In addition, generation Z have characteristics of

individual learners, who want to receive feedback, use and master technology, and work together in teams (Dolot, 2018). The positive experience of generation Z in school and student co-operatives, both past and present, improves positive perception of generation Z toward co-operatives. Co-operatives are considered as a place that allows generation Z to learn and work together in teams (ICA, 2019).

Another reason for the high mean score in generation Z is that generation Z is a member of the co-operative, not from their own will, but from the wishes of their parents who are generation X (Berkup, 2014). The co-operative has savings and educational loans, and generation Z generally become co-operative members to use savings and loans for education. The experience that a co-operative can help members to finance their education has been a positive experience that has influenced the members perception of the structural empowerment of a co-operative. This positive experience also extends to parents of generation Z. In fact, co-operatives have helped generation X to finance their children's education, which goes some way to explain why the perception of generation X toward structural empowerment of the co-operative occupied the second highest mean score. Generation X and Z benefit directly from the presence of operatives, and generation Z's perception of co-operatives can be influenced by the perception of their parents, who are

generally generation X. This finding also explains why the mean scores of Baby Boomers and generation Y are on the same plane.

The higher mean score of generation X compared to the Baby Boomers is in line with research by Singh and Weimar (2017), who found that in the context of work, generation X is more powerful than the Baby Boomers. The Baby Boomers is the generation that obeys the rules, wants stability, and can work together in groups with clear rules (Rentz, 2015). In the context of co-operatives in Sikka, the Baby Boomers took part as the early founders of co-operatives who formed co-operatives based on clear rules and run them traditionally. The co-operatives established by the Baby Boomers did not develop rapidly at that time, so quantitatively, the number of Baby Boomers joining co-operatives from the beginning was quite small; this could explain why the generation's perception of the co-operative capacity to empower members is not as optimistic as that of generation Z. The characteristics of the Baby Boomers generation, which tends to want stability, makes them resistant to changes in co-operatives (Moskovich & Achouch, 2013); however, industrial revolution 4.0 is a change that demands adaptation from co-operatives. This is reinforced by the characters of the Baby Boomers generation in the context of the Sikka district who generally cannot use technology such as the telephone and internet, and as a result, are more skeptical in facing changes and adaptations carried out by co-operatives toward the 4.0 industrial revolution.

If the Baby Boomers are considered as the founders of the co-operative,

generation X is the co-operative mover who develops the co-operative based on guidance from the Baby Boomers. From the beginning, in the context of the Sikka district, generation X played strategic roles in co-operatives, and benefited directly from these roles. In other words, it can be said that generation X is the generation that developed co-operatives through various changes in social, political, and economic situations, and made co-operatives successful in the Sikka district, and extended them to other districts and even to other provinces in Indonesia. This explains why generation X has the second highest mean score after generation Z.

Interestingly, we observed a significant difference between generation X and generation Y; if generation X comprises people who were involved from the beginning and are enjoying the benefits of the co-operative, then generation Y represents a new generation of co-operative in which the members are there by choice. Generation Y comprises young workers who are just starting to manage their lives independently, including managing their own finances. Thus, this generation has not received many benefits from co-operatives when compared to the Baby Boomers and generation X. As such, this generation is still largely skeptical of the co-operative. The lowest mean score of generation Y can also be explained by Rentz (2015) who states that generation Y is a generation that expects praise and guidance, and is more focused on the present situation than the future (Rentz, 2015); this allows generation Y to not have an optimistic perception of the

structural empowerment of co-operatives as generation X and generation Z.

The highest mean score of generation Z shows that co-operatives have good prospects for generation Z. Generation Z is the generation of technological literacy, who experienced the 4.0 industrial revolution during adolescence and early adulthood. The positive perception of co-operative capability in empowering members in generation Z shows that co-operatives can continue to develop in generation Z. These results are in line with the research of Murtagh & Ward (2011), which showed a good regeneration process from co-operative members to members of other co-operatives. History records that the principles and values of co-operative have been passed down from generation to generation, and have not undergone significant changes despite four industrial revolutions (ICA, 2019; WOCCU 2019).

The primary value of a co-operative is the value of humanity (Birchall, 2011; William, 2007), since co-operatives are not oriented toward capital. The 4.0 industrial revolution will replace many workers with robots. Humans create interpersonal relations with artificial objects such as robots and dolls; in this context, human values will fade. When the industrial revolution 1.0 replaced human power with mechanical power, co-operatives were born as an antithesis of the industrial revolution 1.0, when humans worked together to maintain humanitarian values by establishing co-operative as organizations that can make them overcome revolution 1.0. In the 4.0 Revolution, history seems to repeat itself, in that human power is replaced with

sophisticated robots that are increasingly human-like (Pfeiffer, 2016); thus, co-operatives face new challenges to continue maintaining human values.

5. CONCLUSION

In conclusion, generation Z has the most optimistic prospects for co-operative capabilities in empowering its members. This thesis is based on the results of research showing that structural empowerment can be distinguished based on the characteristics of generations. Generation Z has the highest mean compared to other generations, the implication being that the character of the generation needs to be considered for the process of transmitting co-operative values and principles to future generations. Since this research is a preliminary study that it has limitations on homogeneous research samples as a result of only comprising research subjects from one type of co-operative, namely the Credit Union. In further research, it will be necessary to include samples of other types of co-operative. The transmission of the values and principles of co-operatives needs to be explored with a qualitative approach in order to provide confidential data that the process occurs within co-operative.

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