Individual learning and creative performance in Indonesian radio broadcasting industry: the role of knowledge collaboration and team member exchange

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ABSTRACT

The growth of radio broadcasters in Indonesia leads to fierce competition among them. Direct and indirect competition also come from new medium, such as internet or mobile network that made matters worse. In dealing with the competition, radio station should create unique products (i.e. radio broadcast programs) as results of high creative human resources performance. This creative performance become a key success factor in every radio station. On the other hand, finding high creative human resources is not an easy task. Literature revealed that individual creative performance is influenced by individual capability to actively involve in learning process in both individual and team level. However, individual learning process is not directly lead to increasing of individual creative performance. Literature suggested to implement team learning in order to increase the high level of creative performance. The present paper recommends knowledge collaboration and team member exchange as factors that mediates the relationship between individual learning and creative performance.

This study collected data from survey of 115 radio practitioners in Indonesia. Factor analysis and hierarchical multiple regression are used to analyze the data collected from questionnaires. This study confirmed that individual learning influences individual creative performance only through team member exchange. Knowledge collaboration only partially mediates the relationship between individual learning and team member exchange. Furthermore, the present paper found that knowledge collaboration has an impact to team member exchange but not to creative performance. Eventhough the present paper has a limitation from cross-sectional method, but the finding indicates the crucial role of team environments and knowledge collaboration as link of the relationship between individual learning and creative performance among Indonesian radio broadcasters.

Key Words: Individual Learning, Knowledge Collaboration, Team Member Exchange, Creative Performance, Indonesian Radio Broadcasting Industry.

Introduction

The growth of private radio stations in Indonesia is very fantastic. In 1998, there were not more than 1,000 private radio stations in Indonesia, and in 2010, about 2,590 private radio stations are waiting for government approval (www. radioprssni.com, accessed in 7 October 2103). However, this huge number of radio stations in Indonesia is fighting over a small portion of total advertising budget. Radio reached only Rp1.2 trillions (0.9%) of total Rp113 trillions of Indonesia's advertising budget in 2013 (Harliantara, 2013). It can be imagined that the competition in radio business is very severe. The fierce competition in radio broadcasting business challenges radio stations to develop their competitive advantage through excellence and unique organizational elements such as speed, mobility (activity), learning ability, and individual or team work capabilities, which to represent global competition (Satria, 2002). To be more specific, private radio station have to create interesting programs in order to reach more listeners and eventually capture more advertising budget. Creative and interesting radio programs become key success factor of a successful radio station. Therefore, the radio station should develop and improve its creative performance continuously. Oldham and Cummings (1996) concluded that competitive advantage of an organization can be achieved by enhancing the individual creative performance within the organization.

At the beginning, creativity is resulted from imagination and works of uniquely gifted individuals who has great intellectual ability or some other quality that create unusual solutions (Cattani & Ferriani, 2008). Until now, this treat theory remains as a dominant approach to examine individual creativity. However, Amabile (1988) demonstrated that social factors (e.g. organizatonal climate, groups, supervisor, etc.) influence individual creativity. Woodman, Sawyer, and Griffin (1993) emphasized that social context in group encourage their members to show their creative behavior. By this, creativity is resulted from the interaction between two or more individuals in a group that collaborate together to find creative solution to the group problems. In other words, creativive outcomes is resulted from social activity inside the group and institute the notion of social creativity or collaborative creativity (Hargadon & Bechky, 2006). Csikszentmihályi (1996: 23) already mentioned that "creativity does not happen inside people's heads, but in the interaction between a person's thoughts and a socio cultural context."

The present paper takes this point of view to examine the factors from individual and team learning that influence creative performance among radio broadcasters in Indonesia. Eventhough, this research focuses on individual level, the creative performance of radio broadcasters is rarely found as the result of individual work because they will create radio programs in team-based work. According to Muñoz-Doyague and Nieto (2012:), "research on the factors influencing creativity in labor environments is still at an early stage." This implies that the radio broadcaster's ability to work in team in order to implement collaborative learning in stimulating team/individual creativity is crucial (Shin & Zhou, 2007). Hence, this paper investigates also knowledge collaboration and team member exchange as mediators to the relationship between individual learning and creative performance in Indonesian radio stations.

Literature

Creativity is defined as the ability to generate ideas, products, or procedures that are novel, original, feasible. and useful for personal, unit and organization (Amabile, 1996; Cattani & Ferriano, 2008; Cheng, Sanchez-Burks, & Lee, 2008; Madjar, Oldham, & Pratt, 2002). An idea is creative if it corresponds to new (i.e. original and unique compared to the existing ideas) and useful (i.e. meet the demand of a particular situation or achieve some recognizable goals) by any standard given in a premise. It could invloves either a significant recombination of existing materials or the introduction of entirely new materials (Oldham and Cummings, 1996). Creativity and innovation are the different concepts but interrelated to each other (Shalley & Perry-Smith, 2008). Creativity is an ingredient for innovation (Muñoz-Doyague & Nieto, 2012). Creative ideas come first then followed by innovation that implements and commercializes these creative ideas.

Literature on creativity can be divided into two main streams, which are: the trait approach and collaborative approach. The first is dominated the past studies of creativity. It based on the cognitive capabilities of individuals that drive their creative behavior. Within this stream, creativity can be identified through psychological test as an aspect of intelligence and associative process (Muñoz-Doyague & Nieto, 2012).

Cook (1998) identifed two different styles of thinking process: convergent thinking and divergent thinking. Convergent thinking (CT) focuses on developing the in depth of an issue, while divergent thinking (DT) looks at the issue from the widest possible set of perspectives. Through the process, DT is responsible for generate more creative ideas, but when we come to the period of getting a solution, then CT is needed. In order to be creative, the creative-cognition approach suggests that accessibility to different knowledge systems is critical to the generation of creative ideas.

Based on the above above explanations, the present paper proposes the following hypotheses:

H1:   Individual learning has a positive impact on individual creative performance

Starting 1980s, the individual cognitive approach has been influenced by some key authors, for example: Amabile (1988, 1996); Csikszentmihalyi (1996); Ekvall (1996); Ford (1995); Mumford and Gustafson (1988); Shalley (1995); and Woodman et al. (1993). All of these authors commenced the second approach, collaborative approach, as an alternative to understand the creativity. Amabile (1988) pointed out that various contextual factors (e.g., organizational environment, groups, etc.) influence individual creativity. Woodman et al. (1993) asserted that individual creative behavior was influenced by group social context, and group social context was influenced by organizational context. Woodman et al. (1993) stated that,

> "Organisational creativity is a creation of a valuable, useful new product, service, idea, procedure, or process by individuals working together in a complex social system" (p. 293).

Csikszentmihalyi (1996) suggested to use system thinking on understanding creativity and it had been known as a social network model of individuals' creative performance. Csikszentmihályi (1996: 23) mentioned that creativity "does not happen inside people's heads, but in the interaction between a person's thoughts and a sociocultural context." The individual generates new ideas by interacting with the field. On the other hand, the field legitimates back the individual and thus determines which ideas are retained and supported. Recently, Hargadon and Bechky (2006) demonstrated that although some creative solutions can be seen as the products of individual insight, many others are the products of momentary collective processes.

Recent creativity literatures emphasized the shift from individuals to collective creativity (e.g. Chaharbaghi & Cripps, 2007; Hargadon & Beckhy, 2006; Mayfield & Mayfield, 2008; Rickards & Moger, 2006; Sanders, 2001). This shift is based on the assumptions that everyone is creative (Sanders, 2001) and social in nature (Chaharbaghi & Cripps, 2007; Cropley, 2006; Rickards & Moger, 2006). Everyone has equal access to the same body of knowledge in order to understand the situation and even encourage to contribute to its development in a free, open and collaborative manner (Howkins, 2002). Furthermore, Hargadon and Beckhy (2006) stated:

> "Rather than relying on each individual's cognitive skills, collective creativity represents particular moments when people's perspectives and experiences are brought together to bear on problematic situations in ways that create distinctly new solutions" (p. 487).

There are two variables that reflect team environment that will be explored in the present paper, which are team member exchange (TMX) and knowledge collaboration (KC). TMX is defined as the quality of the interpersonal relationships existing between individual and their colleagues in the team (Muñoz-Doyague & Nieto, 2012). High quality TMX characterised by trust and mutual respect among team member and between team member and its team leader. KC defined as the behavior of an individual to share his/her unique knowledge and experiences voluntarilly (Braun, Avital, & Martz, 2012). In the present paper, we propose that high level of individual learning will have a positive impact on both TMX and KC, and thus, this team environment will help back individual to increasing their creative performance.

Based on the above explanations, the present paper develops the following hypotheses:

H2:   *Individual learning influences knowledge collaboration*

H3:   *Individual learning influences team member exchange*

H4:   *Knowledge collaboration influences team member exchange*

H5:   *Knowledge collaboration has a positive impact on individual creative performance*

H6:   *Team member exchange has a positive impact on individual creative performance*

Collective creativity exists when two or more people shared the *bisociation* among them (Sanders, 2001). Accoding to Sanders, *bisociation* is a process of establishing entirely new connections among ideas, in contrast with association that refers to previously established connections among ideas. Collective creativity means collective minds, collective cognition, and collective emotions that shared among member of the group (Chaharbaghi & Cripps, 2007, Hargadon & Beckhy, 2006). However, collective creativity does not mean neglecting the individual creativity (Chaharbaghi & Cripps, 2007). In the very beginning stage of creativity, it still needs the rule-breaker role. In conclusion, collective creativity emphasizes more on the need of creative team environment that enhances the relationship between individual learning and its creative performance. People need the best work atmosphere to foster their creative expression in organizations. Based on this, the present paper suggests the next hypotheses.

H7:   *Knowledge collaboration mediates the relationship between individual learning and Team member exchange*

H8:   *Knowledge collaboration mediates the relationship between individual learning and individual creative performance*

H9:   *Team member exchange mediates the relationship between individual learning and individual creative performance*

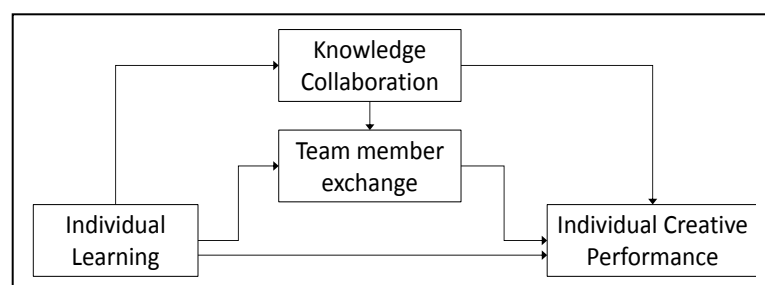Figure 1 below shows the theoretical framework of the present paper.

Figure 1: The theoretical framework

Methodology

Sample and Data Collection

Radio broadcasting industry has been chosen to test the hypotheses. Its simply because radio broadcasting industry requires talented people in order to develop creative programs. Unfortunately, talented radio broadcasters rarely found in the market. However, there is possibility to encourage collective creativity that lies in team actions. In 2012, more than 2000 radios were already on aired in Indonesia (Harliantara, 2013). The present paper distributed 500 questionnaires to the radio that already jointed in a community called Harley Radio Shows. This community covers all private radios in every big cities in Indonesia.

Questionnaires were send by email and collected back also by email within 1 month period in September 2013. During collection period, two email remainders have been sent to all the respondents. By the end Sptember, 128 questionnaires were returned, but only 115 questionnaires were valid (reflected 23% of response rates).

Measurement

All the items of measurement were adapted from previous literatures and implements five point Likert Scales from 1 (strongly not agree) to 5 (strongly agree). Individual learning, knowledge collaboration, and creative performance is measured by using Braun et al. (2012), while TMX was measured by using Muñoz-Doyague and Nieto's (2012) measurement. All the variables were analyze the validity and reliability of measurement by using factor analysis. After factor analysis, all items in two variables (i.e. individual learning and knowledge collaboration) were remain the same as the original items. However, number of items in the two other variables (i.e. team member exchange and individual creative performance) were reduced. Four items in team member exchange and one items in individual creative performance were deleted due to ineligible results of reliability. Finally, all the measurement have alpha Cronbach scores of .792, .908, .875, and .889, respectively for IL, KC, TMX, and ICP. Since all scores were above .70, then all the measurements were valid (Sekaran & Bougie, 2010).

Findings

The present paper is based on 115 returned and valid questionnaires from the respondents. The majority respondents were male (84.3 %), in age range of 30-50 years old (82.6%), and hold majority bachelor degree (61.7%) in various education background. Most of them were General Manager or Station Manager (43.6%), followed by Operation Manager (20%) and Program Manager (20%). Interestingly, majority of them has only less than 5 years in the radio (42.6%), followed by 10 to 15 years experiences (32.2%). However, the respondents were not new guys in radio business since majority of them have already had a broadcasting training and they responded that the radio they work for now was not the first radio for them. Table 1 explains the characteristics of respondents.

Table 1
Respondents Characteristics

Respondents' Characteristics		Percentage
Gender	Female	15.7
	Male	84.3
Age range	20-30 years	15.7
	30-40 years	41.7
	40-50 years	40.9
	More than 60 years	1.7
Education level	high school	24.3
	diplome	13.0
	bachelor	61.7
	master and doctor	0.9
Job tenure	Less than 5 years	42.6
	5 to 10 years	12.2
	10 to 15 years	32.2
	More than 15 years	13.0
Position	GM/Station manager	43.6
	Marketing manager	5.5
	Music director	6.4
	News director	4.5
	Operation manager	20.0
	Program manager	20.0
Is it your first radio?	Yes	36.5
	No	63.5
Have training in broadcast?	Yes	88.7
	No	11.3

The radio where the repondents work had majority less than 10 years old (44.3%) and followed by a range of 10 to 20 years old (30.4%). Most of the radio has5 to 19 employees (73.9%), general segment (63.5%), and uses internet as medium of

broadcasting (96.5%). The percentages of radio that joint to a network was 33% comapres to 67% that remains independent. Six to twelve months was the favorite period for them to create new program (60%). Tabble 2 below explains the characteristics of radio where the respondents work for.

Table 2
Radio Characteristics

Radio stations' Characteristics		Percentage
Radio age	Less than 10 years	44.3
	10 – 20 years	30.4
	20 – 30 years	7.8
	More than 30 years	17.4
Radio size (number of full-time employees)	Less than 5 employees	4.3
	5 – 19 employees	73.9
	20 – 35 employees	18.3
	More than 35 employees	3.5
Segment	General	63.5
	Specific segment	36.5
Use internet?	Yes	96.5
	No	3.5
Joint Network?	Yes	33.0
	No	67.0
How often your radio create new program?	less than 3 months	7.8
	3 - 6 months	11.3
	6 - 12 months	60.0
	more than 12 months	20.9

The correlations among variables understudy can be seen in Table 3. It seems that all the conditions that requires from the hupotheses were met, unless for the correlation between KC and ICP.

Table 3
Correlations between variables understudy

Variables	Mean	Std. Dev.	IL	KC	TMX	ICP
Individual learning (IL)	4.89	.26	1			
Knowledge collaboration (KC)	4.76	.45	.681**	1		
Team member exchange (TMX)	4.36	.50	.613**	.586**	1	
Individual creative performance (ICP)	3.90	.45	.239*	.091	.288**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Totally nine hypotheses were tested by using linier regression. Six out of nine hypotheses were direct relationship between four variables understudy. All the direct

hypotheses were supported, unless one relationship between KC and ICP that found not significant. The R^2 of the relationships were strong for IL-KC, IL-TMX, and KC-TMX links, and weak for IL-ICP and TMX-ICP links. Table 4 shows the results of all hypotheses testing.

Table 4
Direct hypotheses test results

(Hypotheses) Relationship	R^2	Adjusted R^2	Beta	Results
(1) IL to ICP	.057	.049	.235*	Supported
(2) IL to KC	.706	.703	.840**	Supported
(3) IL to TMX	.375	.370	.613**	Supported
(4) KC to TMX	.344	.338	.586**	Supported
(5) KC to ICP	.008	.000	.091	Not supported
(6) TMX to ICP	.085	.073	.288**	Supported

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Three out of nine hypotheses were mediator relationships. Two mediators (i.e. KC and TMX) were tested in the relationship between IL-ICP and IL-TMX links. Hypothesis 7 was not supported. It is because the link between KC and ICP was not existed. However, KC partially mediates the relationship between IL and TMX. Thus, hypothesis 8 was partially supported. The present paper found that TMX roles as fully mediator for the IL-ICP link. Thus, hypothesis 9 was supported. Table 5 shows all the hypotheses testing results of mediators.

Table 5
Mediator hypotheses test results

(Hypotheses) Relationship	Model 1	Model 2	Results
(7) KC mediates IL-ICP relationship[+)]	-	-	Not supported
(8) KC mediates IL-TMX relationship R^2 Beta Change	 .38 .613**	 .43 .398**	Supported (Partially mediates)
(9) TMX mediates IL-ICP relationship R^2 Beta Change	 .06 .239*	 .09 .100	Supported (Fully mediates)

[+)] This hypothesis is not existed (rejected) because the relationship between KC and ICP was rejected
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Discussion

The present paper demonstrated that individual learning can have a positive impact on creative performance if it engage with team environment that support the link. Two

aspects of team environment that had been tested in the present paper, which were knowledge collaboration and team member exchange. The findings showed that these two aspects have different roles in enhancing the link between individual learning and creative performance. Team member exchange found as the team aspects that focal to individual learning efforts in order to capture higher creative performance. On the other hand, knowledge collaboration was found not influence the individual creative performance. However, the existence of knowledge collaboration is very important to leverage individual learning efforts inside the team. Therefore the individual learning can enhance team member exchange direcly or through knowledge collaboration. Figure 2 below shows the suggested framework based on the present paper findings.
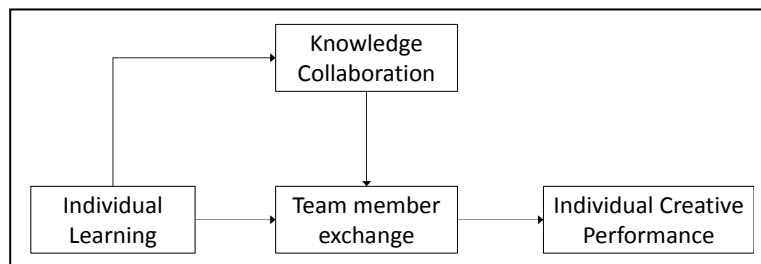

Figure 2: The suggested framework based on empirical test

This findings supported what the literature has been emphasized, especially Csikszentmihalyi (1996); and Woodman et al. (1993). The literature proposed that creative performance of individual not encouraged by individual learning effort, but should involve the quality of the interpersonal relationships that exist between individual and their colleagues in the team. In other words, individual learning can improve creative performance by encouraging high level of trust and mutual respect among team member and between team member and its team leader. On the other hand, the behavior of an individual to share his/her unique knowledge and experiences voluntarilly (i.e. knowledge collaboration) is elements in the team level that perhaps can encourage creative performance in team level not the individual level.

Some implications can be suggested to radio broadcaster's manager. First, in order to nurture and enhance talented people, radio stations should encourage their employee to learn individually as well as in team by engage in team as an active

members. Radio stations should encourage people actively shared with high level trust and mutual respect with other members. Team work is a key to improve creative performance of radio station's employees. Second, radio stations should choose team leader especially in new program development team that can persuade his/her members to share their unique knowledge and experiences in order to develop new ideas. For team members, the present paper suggests active involvement in team interactions in order to increase their creative performance.

Conclusion and Future Research

Based on the findings, the present paper concludes that individual capability that resulted from individual learning efforts should be incorporated with a conducive team environment that characterised with high level of trust and mutual respects. Individual talent is important but the most important is team work.

The present paper has limitations in some points. First, it involves the statistical tools that has been used in testing the hypotheses. Some simultaneous effects of the variables understudy can not be explored in this present paper. Future research can improve the results of this study by using a more sophisticated tools for example by using SEM or PLS. Furthermore, the future research can be emphasized in team level of creativity in order to explore the issues in team level creativity or collective creativity that can not be touched appropriately in this paper. Perhaps the insignificant links between KC and ICP can be answered more detail in team level creativity study.

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