Strengthening SMEs’ Innovation Through HRM and Organizational Learning

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Abstract

This study is to investigate the role of HRM, OL, KM capability in increasing innovation of SMEs in Central Java, Indonesia. This study used 128 SMEs in the fashion creative industry in Jepara, Indonesia, and Semarang, Indonesia. Besides, it used a questionnaire distributed to the owners of SMEs. For data analysis, this study used descriptive statistics and SEM with PLS program. This study found that HRM do not affect KM but affects innovation. Organizational Learning (OL) is also able to strengthen KM and innovation. KM capability also significantly affects innovation. The capability of SMEs to adapt and explore knowledge, innovate, think creatively, which is strong and conducts exploration and exploitation of OL is very important in responding to changes in the very competitive environment. The challenges of SMEs in the industrial revolution 4.0 include economic globalization and the digital economy. SMEs need to be more intensive in increasing their intellectual capital (IC), knowledge management (KM), and dynamic abilities to improve performance.

Keywords: HRM practices, organizational learning, SMEs, KM capability, innovation

1. Introduction

In the industrial revolution 4.0, every organization, especially small and medium enterprises (SMEs), is required to increase its human resources, especially the use of full automation, industrial digitization, and information technology. SMEs have important role in increasing the country's national income and absorbing a significant workforce. Kishore et al., (2012) researched on the role of SMEs in increasing local and regional growth and development. Czajkowski, (2017) stated that SMEs have limited financial resources, which often hinders the management of the HRM system.

The human resource capabilities of SMEs and the use of information technology are critical factors in improving performance and competitive advantage. So far, HRM in SMEs has been centered on the owner, given the simple organizational structure. The owners of SMEs have an important role in developing professional HRM. Even Kishore et al. (2012); Schmelter et al., (2010) state that HRM practices are not needed by SMEs, the current dynamics and competitive situations require SMEs to rethink creative HRM to be able to carry out OL to absorb knowledge in improving innovation, performance and competitive advantage. Freel (1999) believes that technical skills and managerial competencies are the main gaps in innovation challenges in SMEs. The challenges of SMEs in the industrial revolution 4.0 include economic globalization and the digital economy.

One of the creative industry sub-sectors that gave the largest contribution was the fashion sector. The fashion sector contributed 30 percent of the total creative industry with a gross value-added contribution of up to IDR. 181 trillion. Fashion products can contribute to creative industry exports by an average of IDR. 53.94 trillion per year or around 61.13%. Although the total SMEs is quite large and contributes to increasing Indonesia's GDP, most of them still face various problems including human resource capacity, access to and mastery of information technology, access to knowledge, alternative funding, access to global markets, and supply chain management.

Human resource management (HRM) consists of the work management activities related to the company’s agenda (Lin et al., 2008). The purpose of HRM is to provide internal capabilities to adapt to the competitive environment and align with HRM practices including the process of recruitment and selection, training and development, and a reward system (Kidwell and Fish, 2007). SMEs need to be more intensive in restructuring HRM practices, OL, innovation, and greater proactiveness to improve performance (Soininen et al., 2011).
Several studies on the effect of HRM practices on innovation have been conducted by Chen and Huang (2009); Chowhan (2016), and Donate et al. (2016). Human resource management (HRM) practices that are selective and in line with organizational strategy encourage companies to strengthen and maintain competitive advantage. Soliman and Spooner (2000) argue that HRM practices have a significant role in facilitating the absorption, transfer, sharing, and creation of employee knowledge. Theriou & Chatzoglou (2009) found a significant influence between human resource practices on OL and KM. Pfeffer (1994) found that company performance will increase if it is supported by employee participation and empowerment, job design, extensive employee training, and a performance-based reward system.

The OL factor is an important antecedent in improving the performance of SMEs. Companies can only innovate if they develop efficient learning systems to better utilize their resources, competencies, and abilities (Tohidi et al., 2012). A study conducted by Power & Waddell (2004) found that OL has a significant relationship with knowledge performance, financial performance, and customer satisfaction. Tseng (2010) also concluded that OL culture significantly affects organizational effectiveness. (López-Cabrales et al., 2011) found a significant influence between HRM practices on selection and performance appraisal on OL, but employee development did not have a significant effect. Kuo (2011) also found a significant influence between OL on organizational innovation, KM capabilities, and organizational performance.

KM capabilities are organizational abilities that have the potential to affect how organizations manage their knowledge (Lee and Lee, 2007). KMC includes the ability to convert the input to maximum output through internal resources and utilize knowledge to create value. Martínez-Conesa et al., (2017) found that KM capabilities have a significant effect on innovation. Several studies on the importance of the antecedents of innovation in improving competitive advantage and performance have been employed, but have focused more on established manufacturing companies than on SMEs. This study fills this gap by integrating all the factors that are important in increasing innovation to gain increased performance and competitive advantage, especially in small and medium enterprises (SMEs).

This study is to identify and examine the role of intellectual capital, KM, and dynamic capabilities in improving the performance and competitive advantage of SMEs in Central Java. The purpose of this study is to identify and examine the role of intellectual capital, KM, and dynamic capabilities in improving the performance and competitive advantage of SMEs in Central Java. This study is important to give a significant contribution to encouraging the performance of SMEs in the creative fashion industry so that will gain a competitive advantage.

2. Literature Review

2.1 HRM Practices, OL and Innovation

Human resource management (HRM) policies are the policies, practices, and systems that influence employee behavior, attitudes, and performance. Human resource practices include determining human resource requirements, recruiting, screening, training, rewarding, assessing, and also paying attention to employment relations, health and safety, and justice issues (De Cieri et al., 2008). There is agreement on HRM practice among researchers, such as Jiang et al. (2012); Lepak et al. (2006); Lin and Sanders (2017), that HR policy includes recruitment and selection, performance management (appraisal), training and development, compensation and award management, job design, employee participation, work relations. Research conducted by (Osman et al., 2011) found that human resource practices, communication and employee relations, career planning, and job design have a significant effect on organizational performance. There is a positive and significant effect of HRM practices (recruitment and selection, training, human resource planning (HR), reward systems and employee participation activities) on productivity (Koch and McGrath, 1996); overall performance (Pfeffer, 1998); and innovative (Hoque, 1999). López et al. (2006) found that selective recruiting, strategic training, and employee participation in decision-making had a positive effect on OL. Kuo's study (2011) found that human resource practices have a significant effect on OL, KM, and innovation. Jiménez-Jiménez and Sanz-Valle (2008) found that good HRM will enhance innovation.

2.2 Organizational Learning, KM, and Innovation

Organizational learning (OL) is a process that develops updated knowledge and insights from the general experience of individuals in the organization that affects the company’s behavior and capabilities (Huber, 1991; Senge, 1990). Huber (1991) believed that OL has four (4) constructs: knowledge acquisition, information distribution, information interpretation, and organizational memory. Learning from experience, observation, and grafting are included in knowledge acquisition. Knowledge distribution concerns on how units that have and need the information can quickly connect with each other. The interpretation of information is the organizational process where information is translated and concluded. Storing and retrieving information and making decisions
at the organizational level are aggregated into organizational memory (Huber, 1991). A process of turning organizational knowledge into action (Slater and Narver, 1995) and changing individual and organizational behavior (Skerlavaj et al., 2010) is called OL. While previous studies both qualitative and quantitative provide evidence of the relationship between OL and innovation. Several qualitative studies show that OL enhances innovation (Yeung et al., 2007). This is corroborated by the opinion of Weerawardena et al. (2006) which also shows that OL influences innovation intensity. Raj & Srivastava, (2016) found that OL significantly affects the level of innovation. Furthermore, Jain & Moreno, (2015) found performance management, rewards, and recognition as dimensions of OL to be positive predictors of the process dimensions and leadership of KM practices.

2.3 Knowledge Management and Innovation

KM is used by organization in the form of practices and techniques to identify, represent and distribute knowledge, skills, intellectual capital, and other forms of knowledge to utilize, reuse and transfer knowledge and learning across the organization (Iandoli and Zollo, 2007). KM includes six processes: knowledge acquisition, knowledge creation, knowledge storage, knowledge distribution, knowledge use, and knowledge maintenance (Fong & Choi 2009). Some previous studies found that companies that adopt KM practices will be better than companies that do not (Pathirage et al., 2007). KM practices was applied in various industries such as manufacturing, consulting, tourism, and call centers. Furthermore, KM process consists of four different aspects: knowledge acquisition, knowledge creation, knowledge storage, and knowledge application. Knowledge acquisition is the first KM process to emphasize and provide special importance to individual knowledge capabilities in organizations. Research conducted (Chidambaranathan & Swarooprani, 2015) concluded that KM activities significantly affect organizational effectiveness such as government institutions. (Wang & Yang, 2016) conduct research on SMEs in Taiwan found that the use of KM significantly affects user satisfaction and net benefits. (Pee & Kankanhalli, 2016) conducted research on public organizations in Singapore believed that KM capabilities significantly affect organizational effectiveness. However, (Darroch, 2005) asserted that KM significantly affects innovation and performance.

2.4 Empirical Model

![Figure 1. Empirical Model](http://ibr.ccsenet.org)

2.5 Hypothesis

H1: HRM significantly affects KM capability.

H2: HRM significantly affects organizational innovation.

H3: OL significantly affects KM capability

H4: OL significantly affects organizational innovation.

H5: KM capability significantly affects organizational innovation.

H6: Absorption moderates KM capability on organizational innovation.
3. Methodology

3.1 Research Samples

This study used 128 players of fashion creative SMEs in Jepara, and Semarang, Indonesia as samples. The purposive sampling method was used by this study with the criteria of SMEs with five years’ of operating and still grows today.

3.2 Data Collection Technique

This study used questionnaires and interviews as primary data. The questionnaires were distributed to the owners/players of the fashion creative industry through the help of surveyors and staff from the SMEs and Cooperative offices in each regency/city for 1 month. After that, the collected questionnaires were validated before data processing. Moreover, secondary data is gained from BPS (Central Statistics Bureau). Secondary data is taken in the form of the number of SMEs in the fashion creative industry and sales turnover.

3.3 Variable Measurement

Human Resource Management is measured by using 4 dimensions which consist of Personnel Staffing, Performance Appraisal, Rewards & Compensation, Training and Development, and Employee Participation.

Organizational learning is measured using 4 indicators, namely information sharing patterns, climate inquiry, learning practices, and achievement mindset.

Knowledge management capability is measured using 3 dimensions which consist of learning and knowledge acquisition; sharing knowledge, creating and enhancing knowledge.

Organizational innovation is measured by using technology innovation (product, process, and service innovation); and administrative innovation.

All variables are measured using a scale of 1 to 5, 1 to strongly disagree and 5 to strongly agree.

4. Results

Table 1. Value of Mean, SD, and Correlation among variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>HRM</th>
<th>OL</th>
<th>KMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM</td>
<td>3.82</td>
<td>0.95</td>
<td>0.713**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OL</td>
<td>3.75</td>
<td>0.79</td>
<td>0.718**</td>
<td>0.758**</td>
<td></td>
</tr>
<tr>
<td>KMP</td>
<td>3.80</td>
<td>0.76</td>
<td>0.721**</td>
<td>0.815**</td>
<td>0.797**</td>
</tr>
<tr>
<td>INNOVATION</td>
<td>3.88</td>
<td>0.85</td>
<td>0.720**</td>
<td>0.812**</td>
<td>0.797**</td>
</tr>
</tbody>
</table>

**.Significant at 0.01 (2-tailed).

Table 2. Value of Original sample estimate, composite reliability, AVE

<table>
<thead>
<tr>
<th>Variable / Indicator</th>
<th>Original estimate</th>
<th>sample T Statistic</th>
<th>Composite Reliability</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM Practices (HRM)</td>
<td></td>
<td></td>
<td>.944</td>
<td>.808</td>
</tr>
<tr>
<td>HRM1</td>
<td>0.933</td>
<td>50.191</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRM2</td>
<td>0.859</td>
<td>21.760</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRM3</td>
<td>0.928</td>
<td>62.803</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRM4</td>
<td>0.874</td>
<td>24.139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Learning (OL)</td>
<td></td>
<td></td>
<td>.942</td>
<td>.803</td>
</tr>
<tr>
<td>OL1</td>
<td>0.865</td>
<td>31.791</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OL2</td>
<td>0.900</td>
<td>43.115</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OL3</td>
<td>0.916</td>
<td>66.617</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OL4</td>
<td>0.903</td>
<td>53.189</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge Management (KM)</td>
<td></td>
<td></td>
<td>.937</td>
<td>.832</td>
</tr>
<tr>
<td>KMP1</td>
<td>0.945</td>
<td>61.902</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KMP2</td>
<td>0.854</td>
<td>26.158</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KMP3</td>
<td>0.935</td>
<td>62.043</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation (INOV)</td>
<td></td>
<td></td>
<td>.947</td>
<td>.857</td>
</tr>
<tr>
<td>Inov1</td>
<td>0.945</td>
<td>68.315</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inov2</td>
<td>0.880</td>
<td>36.918</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inov3</td>
<td>0.951</td>
<td>78.177</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on the original sample estimated value, all indicators of human resource practice management, OL, KM, and innovation were valid, and had a T statistic of > 1.96 (α = 5%). The composite reliability value of all variables is > 0.7, which indicates that all variables have high reliability.
Table 2 shows that there is no significant relationship between HRM practices and the KM process (OSE = 0.361, T statistic < 1.96), so H1 is rejected. H2 is accepted (OSE = 0.157, T statistic > 1.96), OL has a significant and positive effect on the process of KM. H3 is accepted, the practice of HRM has a significant and positive effect on SME innovation. OL has a significant and positive influence on organizational innovation so H4 is accepted. H5 is accepted, that the practice of KM has a significant and positive effect on organizational innovation.

5. Discussion

HRM has no impact on increasing the KM capabilities of SMEs. Considering that the majority of SMEs have a relatively limited number of human resources and their selection system without going through a complete process, the HR capabilities are relatively limited, making it difficult to increase KM capabilities within the organization. Some of the factors include recruitment and selection systems and analysis, performance appraisal systems, reward and compensation system design, and training and development. The findings of this research differ from the arguments of Narasimha (2000); Svetlik and Stavrou-Costea (2007); Ikeno et al. (2007), that HRM is the key to improving KM.

This study found that OL had a significant and positive effect on KM capability. Patterns of organizational sharing, including clear methods and information sharing within the organization, will encourage employees to capture, understand, and replicate existing knowledge so that it will produce various ideas that support innovation within the organization. In addition, many employees who are actively learning in the organization will more easily capture and understand knowledge better, including the ability to use electronic communication tools and social media and form formal and informal discussion groups to share knowledge. Strengthening OL will certainly make it easier to create and improve existing knowledge and innovate new knowledge. The results of this research also support the findings of Ju et al. (2006); Lemon and Sahota, (2004). Shipton et al. (2005); Jimenez-Jimenez and Sanz-Valle (2008) found that good HRM will encourage increased innovation. Thus, this is in line with the findings of this study, that HRM has a significant effect on innovation. Recruitment systems, performance appraisal, training and development as well as good rewards and compensation will be able to drive a higher innovation process. Research findings also show that OL has a significant effect on technological innovation (process, product, service) and administrative innovation (strategy, structure, system, and innovation culture) (Stata, 1989; Shipton et al., 2005). Apart from OL, innovation can also be accelerated by strengthening KM processes within the organization. However, the process of increasing innovation in the organization can be
done by strengthening HR management, OL, and KM processes. For SME managers/owners, it is necessary to improve a more modern management system by properly carrying out the stages of the HR procurement process, which can be supported by an online-based technology system. The creation of forums for discussion and sharing of knowledge as well as strengthening the process of capturing and sharing knowledge will further encourage creative ideas to generate innovation.

6. Conclusion
This study examines the importance of HRM and OL in improving KM processes and SME innovation. The research findings show that SME human resources have not been able to improve KM capabilities. This is supported by the low capacity of SMEs in carrying out formal HRM processes so that under current conditions it will be difficult to trigger increased KM within the organization. Limitations of SMEs in the field of management cause the management of human resources is not optimal so it does not have an impact on improving KM capabilities compared to large companies whose management is well and professionally managed. The results of the study also show that OL is able to increase KM capabilities and innovation in SMEs. The resilience of SMEs in facing various environmental changes results in better OL, which has an impact on improving the process of acquisition, conversion, and application of knowledge and will further encourage the creation of faster innovations.

7. Limitation & Future Research
The results showed that HRM has not been able to encourage the improvement of the KM process capabilities of SMEs. This is related to SMEs’ low attention to the procurement system and the development of quality employees. The majority of fashion SMEs in Central Java are still relatively small and medium, so the ability to properly manage HRM is still an obstacle. Future research is suggested to investigate the importance of organizational values in moderating the effect between HRM and KM processes.

References


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