THE EFFECTS OF LEADERSHIP AND EMPLOYEE PERFORMANCE ON INNOVATION PERFORMANCE AMONG INDONESIAN SMES

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Abstract: The innovation performance in contact with leadership and employee performance is an emerging research area nowadays because only employee and leaders are ensure the innovation performance especially in SMEs where the innovation is the necessary part to achieve high performance goals of the firm. Thus, the objective of this study is to examine the effects of leadership on innovation performance among Indonesian small and medium-sized enterprises with the mediating role of employee performance. Leadership is one of the most influential elements among organizations. The data were collected from the managerial employee of these SMEs. After using Smart-PLS, this study concluded that transformational leadership and transactional leadership have significant effects on innovation performance through employee performance. Both transformational leadership and transactional leadership promote employee performance which finally increases the innovation performance among Indonesian SMEs. This study proved employee performance as a mediating variable between leadership and innovation performance. Thus, this study has significant implications for literature as well as for the managers of SMEs.

Key words: transformational leadership, transactional leadership, employee performance, innovation performance, SMEs.

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Introduction

Small and medium-sized enterprises (SMEs) are a valuable sector of every nation’s economy. This segment has a vital contribution to increasing gross-domestic-product (GDP), which has an important role in promoting economic development. As literature also provides the evidence that SMEs are vital for economic development (Al Badi, 2019; Bakhouche, Elchaar, & Emam, 2020; Hongbo, Lucien, Raphael, & Boris, 2018; Hossain, Siddique, & Al Jamil, 2018). Lack in the performance of SMEs shows a negative effect on the economic development of the country. Most of the countries are focusing on to increase the SMEs performance to strengthen the economy. Particularly, SMEs performance is most important for developing countries.

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Indonesia is a developing country where the SMEs has greater importance for the economy. SMEs also has a major role in providing economic activity for poor people and causes to decrease in the level of poverty. That is the reason the Indonesian government is focusing on SMEs development and concerns with the high performance of this sector. In Indonesia, both GDP and SMEs work in a similar way to promote the economy. As the investment in SMEs has a link with GDP (Nawaz & Hassan, 2016).

High investment in SMEs by the Indonesian government also requires high performance. However, these SMEs are facing various issues related to performance. Low performance of SMEs is based on diverse problems related to the employees as well as innovation. Generally, the good performance of employees leads to a better performance of SMEs. As previous studies also highlighted that employee performance is key to SMEs performance. Improvement in employee performance improves the IP among SMEs, which is important. As it is highlighted by Hameed, Basheer, Iqbal, Anwar, and Ahmad (2018) that innovation is key to SMEs performance. Increase in innovation increases SMEs performance.

Though, there are various factors which may effect on employee performance. These factors mush be identified to improve SMEs performance (Hadad & Gauca, 2014). This study inspected the psychological role of leadership on employee performance. According to the current study, leadership has a significant psychological effect on the employee, which causes to decrease or increase in employee performance. Literature also proved that leadership has a crucial role in employee performance (Walumbwa et al., 2011). Therefore, it is important to highlight the role of psychological effect on employee performance (Ivanova, Holionko, Tverdushka, Olejarz, & Yakymchuk, 2019).

Different studies considered the Indonesian SMEs (Jermsittiparsert, Siriattakul, & Wattanapongphasuk, 2019; Yanto, Yulianto, Sebayang, & Mulyaga, 2017); however, these studies did not consider the psychological role. Consequently, this study has an important role to fill the literature gap. Moreover, various studies also considered the leadership and SMEs (Arham, Sulaiman, Kamarudin, & Muenjohn, 2017; Walden, Lie, Pandolfo, & Nemme, 2020), however, these studies did not consider the psychological effect of leadership on employee performance. The psychological effect of leadership has a significant effect on decreasing or increasing employee performance (M. S. Hussain, Musa, & Omran, 2019). It can develop a positive image of the company, which may lead to performance. It increases the motivational level of employees, which is most important for better performance as motivation is the most important part of employee performance (S. Hussain, Rizwan, Nawaz, & ul Hameed, 2013).
This study is imperative because it inspected the relationship between transformational leadership (TL), transactional leadership (TRL), employee performance and IP. Particularly, it has an important contribution because this study is an attempt to examine the psychological role of leadership on employee performance and SMEs innovation performance (IP).

**Literature review**

Innovation plays a central role among organizations to boost both financial and non-financial performance. It is the most important element which causes to increase performance. Most of the companies majorly focused on innovation activities to enhance performance. However, it depends on the IP of the company. As this study concerned with the SMEs, therefore, SMEs IP is considered. Every company try to do something innovative and always try to increase innovation. It will only be beneficial if the innovation has a significant performance. Low IP decreases company performance as it is clear from previous studies that IP has a major role among the organizations (Alegre & Chiva, 2013). IP can describe as, the use of new ideas or creativity to advance the products, methods, procedures that upsurge the significance, practicality and performance of the products as well as services. IP is one of the main drivers of business performance among organizations. Therefore, to increase the performance of SMEs, it is important to increase the IP of SMEs.

This study filled the literature gap and considered the psychological effect of various factors on IP through employee performance. The current study considered the psychological role of leadership on employee performance and IP. In the field of leadership, this study considered TL and TRL. The relationship between TL, TRL, employee performance and IP are highlighted in Figure 1.
Leadership is one of the research areas as well as a practical skill surrounding the capability of an individual, company or organization to "lead" or guide other individuals, teams, or whole organizations. It has a pivotal role among the organizations which lead to the employees towards better performance and ultimately affect positively on overall company performance. TL is a philosophy of leadership where the leader of the company works with different teams to classify required change, creating a vision to lead the change with the help of inspiration and implementing the change in tandem with dedicated members of a team; it is a vital part of the Full Range Leadership Model. Several studies have investigated and proved that TL has the most important role among organizations (Yavuz, 2020). Various other research studies considered the role of TL on employee performance, but the studies did not consider the psychological role of TL on employee performance. It is important to consider because leaders always have a psychological effect on the employee, which affect the performance of the employees. Therefore, the current study considered this literature gap and examined the psychological effect of TL on employee performance, and developed the following hypothesis;

H1: Transformational leadership has a relationship with employee performance.

Innovation is the generation of new ideas to the product, process or any method which add something new to the product or services and benefit the customers as well as the company. Idea generation is most important among the organizations to satisfy the customers as customer satisfaction is always vital for the companies (Nadeem, Alvi, & Iqbal, 2018). Innovative ideas always show positive role to product or services which help to satisfy the customers and increases the performance. In this way, leadership shows positive role to enhance the innovative performance. Leadership has the potential to increase the motivational level among the employees (Agung & Widnyana, 2020), which causes to introduce new and latest ideas. With the help of the transformational level, it increases the motivation and encourages the employee to enhance employee performance which lead to the IP. It creates a psychological impact on employees which lead to better innovative ideas. As the innovation and leadership has a relationship with each other (Ibrahim & Isaacb, 2020) which lead to the below hypothesis;

H2: Transformational leadership has a relationship with innovation performance.

TRL is one of the styles of leadership in which different leaders encourage compliance by various followers with the help of both rewards as well as punishments. Through a reward as well as punishments system, transactional leaders can retain followers inspired for the short-term. TRL is the significant element of leadership among the organizations, which has an important
relationship with employees. Generally, it has a positive role to enhance employee performance. In this direction, the current study is most important to fill the literature gap by examining the psychological effect of TRL on employee performance. It is expected that TRL has a positive psychological effect on employees which ultimately increases the employee performance among SMEs. Especially, the psychological effect of leadership is neglected by the literature in the case of Indonesian SMEs. Hence, the following hypothesis is proposed;

H3: Transactional leadership has a relationship with employee performance.

Leaders are always helpful to motivate their employees and produce good leaders with the help of their employees. Good leaders lead by example and increase the confidence level among the employees. In this direction, the TRL style also has a significant contribution toward employee encouragement and to produce new ideas. Better leaders are always a continuous source of innovation among organizations. Better leaders also produce good leaders from the existing employees. Therefore, TRL has a positive effect on innovation activities. Previous studies also proved the relationship between TRL and employees performance (Cho, Shin, Billing, & Bhagat, 2019; Saeed, 2018). Hence, TRL is vital to increase the IP among SMEs which lead to the following hypothesis;

H4: Transactional leadership has a relationship with innovation performance.

From the above discussion, it is evident that TL and TRL has a significant relationship with employee performance. Further, employee performance has a significant relationship with IP. Increase in employee performance increases the IP among the SMEs. This relationship is also proved by previous studies (Chai & Xiao, 2018; Sadikoglu & Zehir, 2010). Moreover, employee performance is playing a mediating role between leadership and IP. TL and TRL have a significant relationship with employee performance and IP.

Furthermore, TL and TRL have a significant relationship with IP. In addition, employee performance has a significant relationship with IP. Thus, according to Baron and Kenny (1986), this condition is supportive of using employee performance as mediating variables between leadership and IP. Hence, from this discussion, along with the direct effect of employee performance on IP, this study also introduces two indirect hypotheses;

H5: Employee performance has a relationship with innovation performance.

H6: Employee performance mediates the relationship between transformational leadership and innovation performance.

H7: Employee performance mediates the relationship between transactional leadership and innovation performance.

Research methods

Indonesian SMEs are under investigation in this study. The IP of SMEs is considered based on various factors. SMEs are selected because SMEs are the
major part of Indonesian economic activity. Better IP by these SMEs is most important for the economy. That is the reason the current study considered SMEs in this study. Therefore, the population of this study is SMEs. This study is quantitative, and data were collected through a questionnaire. A survey was carried out to collect the data from SMEs. In this survey, the questionnaire was the major element to collect data. Respondents of this study were the employees of SMEs. Only those employees were selected which were working on a managerial level as the managerial level employee can better understand IP and can better answer the questions asked through a questionnaire survey. Moreover, this study used the Likert scale for data collection. It is an important scale to get information because it can collect respondents’ views and opinion in a better way.

There are various techniques to collect data. However, the current study used area cluster sampling for data collection. It is suitable because area cluster sampling can cover the wider population as compared to the other techniques (Altaf, Hameed, Nadeem, & Arfan, 2019). Total of 500 questionnaires was sent to the Indonesian SMEs with the help of email. However, only 190 questionnaires were returned. This response rate is acceptable as this study collected data with the help of email.

Data analysis and findings

This study examined the relationship between different variables. The relationship between TL, TRL, employee performance and IP as examined in this study. This relationship was examined with the help of a statistical tool. However, data which was entered in the excel sheet for analysis were examined to check the errors in the data.

Statistical software used in this study is Partial Least Square (PLS) which is most recommended by different studies (Henseler, Ringle, & Sarstedt, 2015). It is one of the most suitable tools which is used by a wider number of studies in the literature. Therefore, by following the literature, the current study also utilized PLS for data analysis and approached the findings of the study. PLS data analysis is based on different steps; however, the first step is given in Figure 3, and the results are given in Table 1, Table 2 and Table 3.
Figure 2: Confirmatory factor analysis (CFA)

Figure 2 is the PLS measurement model which shows the factor loadings. It is recommended by different studies that factor loadings must not be below 0.5. Few studies highlighted that it must be above 0.7. However, this study considered 0.6 as the minimum criteria. All the factor loading is given in Figure 2 and Table 1. It shows that none of the items has factor loading below 0.5. All the items have factor loadings above 0.5. Thus, the results the factor loadings indicated the high correlation among the items and valid convergent validity along with the valid measurement model of the study.

<table>
<thead>
<tr>
<th>Employee Performance</th>
<th>IP</th>
<th>TRL</th>
<th>TL</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP1</td>
<td>0.882</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP2</td>
<td>0.888</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP3</td>
<td>0.913</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP4</td>
<td>0.905</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP5</td>
<td>0.895</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EP6</td>
<td>0.696</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP1</td>
<td>0.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP2</td>
<td>0.899</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP3</td>
<td>0.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP4</td>
<td>0.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP5</td>
<td>0.922</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IP6</td>
<td>0.928</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
After the assessment of factor loadings, this study also assessed the Cronbach alpha and composite reliability. These results are available in Table 3. According to the prior studies, Cronbach alpha and composite reliability must be above 0.7 (Hair, Hollingsworth, Randolph, & Chong, 2017). Table 2 shows that all the values are under an acceptable range. Moreover, AVE is given in Table 2, which is above 0.5 and confirm convergent validity.

### Table 2: Alpha, CR and AVE

<table>
<thead>
<tr>
<th></th>
<th>Cronbach's Alpha</th>
<th>rho_A</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee Performance</td>
<td>0.932</td>
<td>0.933</td>
<td>0.947</td>
<td>0.751</td>
</tr>
<tr>
<td>IP</td>
<td>0.962</td>
<td>0.962</td>
<td>0.968</td>
<td>0.813</td>
</tr>
<tr>
<td>TRL</td>
<td>0.956</td>
<td>0.956</td>
<td>0.964</td>
<td>0.818</td>
</tr>
<tr>
<td>TL</td>
<td>0.954</td>
<td>0.954</td>
<td>0.963</td>
<td>0.813</td>
</tr>
</tbody>
</table>

As this study examined the relationship between TL, TRL, employee performance and IP, seven hypotheses were developed in which five hypotheses were based on the direct effect of TL and TRL on employee performance and IP. All the direct hypotheses are supported as highlighted by the results in Table 3. The values of beta associated with positive sign that show positive association among variables while t-statistics are more than 1.64 and probability values are lower than 0.05 that
shows significant relationships among variables. TL and TRL have a positive effect on employee performance and IP.

Along with the direct effect, two indirect effects were examined. The indirect effect of employee performance was examined between TL and IP. Moreover, the indirect effect of TRL was also examined between TRL and IP. Both indirect effects are significant because the t-values are larger than 1.64 while p-values are smaller than 0.05. In addition, the mediation is positive because positive sign is linked with beta values as given in Table 4. Employee performance is a mediating variable between TL and IP. It is also a mediating variable between TRL and IP.

### Table 3: Structural model (Direct effect)

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>M</th>
<th>SD</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP -&gt; IP</td>
<td>0.608</td>
<td>0.614</td>
<td>0.177</td>
<td>3.44</td>
<td>0.001</td>
</tr>
<tr>
<td>TRL -&gt; EP</td>
<td>0.639</td>
<td>0.638</td>
<td>0.071</td>
<td>9.059</td>
<td>0.000</td>
</tr>
<tr>
<td>TRL -&gt; IP</td>
<td>-0.526</td>
<td>-0.529</td>
<td>0.206</td>
<td>2.549</td>
<td>0.011</td>
</tr>
<tr>
<td>TL -&gt; EP</td>
<td>0.326</td>
<td>0.328</td>
<td>0.073</td>
<td>4.468</td>
<td>0.000</td>
</tr>
<tr>
<td>TL -&gt; IP</td>
<td>0.68</td>
<td>0.679</td>
<td>0.18</td>
<td>3.781</td>
<td>0.000</td>
</tr>
</tbody>
</table>

### Table 4: Structural model (Indirect effect)

<table>
<thead>
<tr>
<th></th>
<th>β</th>
<th>M</th>
<th>SD</th>
<th>T Statistics</th>
<th>P Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRL -&gt; EP -&gt; IP</td>
<td>0.388</td>
<td>0.393</td>
<td>0.125</td>
<td>3.1</td>
<td>0.002</td>
</tr>
<tr>
<td>TL -&gt; EP -&gt; IP</td>
<td>0.198</td>
<td>0.2</td>
<td>0.072</td>
<td>2.758</td>
<td>0.006</td>
</tr>
</tbody>
</table>
Discussion

This study is examined the links of leadership styles such as transformational leadership and transactional leadership with the innovational performance along with the mediating role of employee performance. The results indicated that positive association among the leadership styles and innovation performance and these findings are similar with the output of Zacher, Robinson, and Rosing (2016) who indicated that leadership styles have a positive impact on the innovational performance of the organization. In addition, this study found a positive mediating impact of employee performance on the links of leadership styles and innovational performance and this output also matched with the findings of the Ebrahimi, Moosavi, and Chirani (2016) who also found employee performance is necessary for the leadership styles to improve innovation performance. These findings provided the guideline to the regulation making authorities along with the management of the SMEs that they should provide the extra intention towards the effective leadership styles that enhance the innovation performance of the firm. They should develop and implement the effective policies to groom the leadership qualities that enhance the innovation and its performance in the organization.

Conclusion

The objective of this study was to examine the psychological effect of leadership on IP among Indonesian SMEs with the mediating role of employee performance. The relationship between TL, TRL, employee performance and IP as examined in this study. To achieve this, data were collected from Indonesian SMEs and analyzed by using PLS. Results of the study provided valuable insights. It is found that leadership is most crucial to creating a positive or negative psychological effect in the minds of employees which finally influences the IP of the company. Both TL and TRL has a significant psychological effect on IP through employee performance. Both TL and TRL promote employee performance which finally increases the IP among Indonesian SMEs. Increase in better TL and TRL increases the employee performance and finally increase in employee performance significantly increases the IP of SMEs. This study proved employee performance as a mediating variable between leadership and IP. Employee performance is one of the important factors which can transfer the positive effect of TL and TRL on IP. Thus, the relationship between TL, TRL and employee performance is key to increase IP. Results of the study provided key contribution both for the literature as well as for the SMEs. Therefore, this study has valuable theoretical and practical implications. Theoretically, this study contributed by examining the valuable relationship between TL, TRL, employee performance and IP. Especially, this study examined the psychological effect of leadership on employee performance.
and IP, which has not been studied by previous studies. Along with these implications, the relationship between TL, TRL, employee performance and IP also provide recommendation for the management of SMEs. This study suggested that positive; leadership create a positive psychological effect which can enhance both employee performance and IP. Particularly, among the Indonesian SMEs. This study has some future directions, and limitations such as it take only two leadership styles and ignore the other styles of leadership and suggested that future study should add more styles of leadership in their analysis. In addition, this study took mediation in the model and suggested that upcoming studies should include moderator in their studies. The scope of the study is limited to the SMEs and recommended that future studies should add more business under investigation to expand the scope of their research. Moreover, other factors should be add by the upcoming studies that predict the innovation performance and not undertaken by the present study.

References


**WPŁYW PRZYWÓDZTWA I WYDAJNOŚCI PRACOWNIKA NA WYNIKI INNOWACYJNOŚCI W INDONEZYSKICH MŚP**

**Streszczenie:** Skuteczność innowacji w kontakcie z przywództwem i efektywnością pracowników jest obecnie rozwijającym się obszarem badań, ponieważ tylko pracownicy i liderzy zapewniają skuteczność innowacji, szczególnie w MŚP, w których innowacja jest niezbędna do osiągnięcia celów firmy w zakresie wysokiej wydajności. Tak więc celem tego badania jest zbadanie wpływu przywództwa na wyniki innowacyjne wśród indonezyjskich małych i średnich przedsiębiorstw z pośredniczącą rolą wydajności pracowników. Przywództwo jest jednym z najbardziej wpływowych elementów wśród organizacji. Dane zostały zebrane od kierownika tych MŚP. Po zastosowaniu Smart-PLS badanie wykazało, że przywództwo transformacyjne i transakcyjne ma znaczący wpływ na wydajność innowacji dzięki wydajności pracowników. Zarówno przywództwo
transformacyjne, jak i transakcyjne promuje wydajność pracowników, co ostatecznie zwiększa wydajność innowacyjną wśród indonezyjskich MSP. Badanie to potwierdziło wydajność pracowników jako pośredniczącą zmienią między przywództwem a wydajnością w zakresie innowacji. Zatem niniejsze badanie ma znaczące implikacje dla literatury, a także dla menedżerów MSP.

Słowa kluczowe: przywództwo transformacyjne, przywództwo transakcyjne, wydajność pracowników, wydajność innowacji, MSP.

领导能力和员工绩效对印尼中小企业的创新绩效的影响

摘要: 与领导力和员工绩效相关的创新绩效是当今新兴的研究领域, 因为只有员工和领导者才能确保创新绩效, 特别是在中小企业中, 创新是实现公司高性能目标的必要组成部分。因此, 本研究的目的是通过员工绩效的中介作用考察领导力对印尼中小企业创新绩效的影响。领导力是组织中最具影响力的因素之一。数据是从这些中小企业的管理人员那里收集的。在使用Smart-PLS之后, 本研究得出结论, 变革型领导和交易型领导通过员工绩效对创新绩效产生重大影响。变革型领导和交易型领导都可以提高员工绩效, 最终提高印尼中小企业的创新绩效。这项研究证明了员工绩效是领导能力与创新绩效之间的中介变量。因此, 这项研究对文献以及中小型企业的管理者都具有重要的意义。

关键词: 变革型领导, 交易型领导, 员工绩效, 创新绩效, 中小企业