Knowledge integration capability, innovativeness, and entrepreneurial orientation on business performance

Helisia Margahana¹, Dyah Sugandini²)
¹Sekolah Tinggi Ilmu Ekonomi Trisna Negara, Sumatera Selatan, Indonesia
²Universitas Pembangunan Nasional Veteran Yogyakarta, Indonesia

ABSTRACT

Objectives – This study aims to analyze the business performance of SMEs in South Sumatera, which has limited resources and is affected by the COVID-19 pandemic but can still survive. The business performance is analyzed through knowledge integration capability, innovativeness, and entrepreneurial orientation.

Design/methodology/approach – The research method used is a questionnaire survey, and the respondents observed were 232 SMEs in South Sumatra. The data analysis technique uses a two-step approach to SEM with SEM-AMOS 25.

Findings – The Business Performance Model is acceptable. Furthermore, business performance is influenced by knowledge integration capability, innovativeness, and entrepreneurial orientation. The more SMEs that have a strong entrepreneurial orientation can integrate the knowledge of their employees and have the ability to adopt innovation (innovativeness) quickly, SMEs can improve their performance, even in difficult times due to the COVID-19 pandemic.

Research limitations/implications – This study only observed SMEs that survived the COVID-19 pandemic and did not involve SME respondents who failed to adapt to the pandemic. This study only uses knowledge integration capability, innovativeness, and entrepreneurial orientation in predicting performance. The ability to integrate knowledge has a relatively small impact on the performance of SMEs, and it is better if the influence of this knowledge can be analyzed further to get better results.

Originality/value – This study adds entrepreneurial orientation as a determinant of the ability to integrate knowledge in one model analyzed to predict SMEs performance after the COVID-19 pandemic. The respondents of this research are also SMEs that have been affected by COVID-19 and are still surviving now.

Corresponding Author:
Sugandini, D., Email: dini@upnyk.ac.id

Introduction

The growing understanding in the scientific literature illustrates that organizational expertise in coordinating resources, skills, and knowledge has a relevant role in achieving performance excellence (Marchiori et al., 2022). Several research results show that superior performance is obtained by building and developing information technology capabilities by investing in IT resources. Human resources, consisting of technical skills, interpersonal skills, and posture of team members in dealing with technology, can be identified as the human capital of an organization’s IT (Chen et al., 2015). However, the IT literature does not link IT human resources with IT capabilities. At the same time, some studies incorporate the human aspect into IT capabilities as an intrinsic part of their training (Chen and Tsou, 2012); (Marchiori et al.,
2022). Other research shows that information technology can positively impact the development of an innovation-oriented organizational environment and recognizes the potential to boost organizational capacity to innovate from organizational innovation capabilities (Guo et al., 2021).

IT capabilities or innovativeness can improve communication, information and knowledge sharing, exchange between organizations, and organizational learning processes, which support innovation. Dong and Yang (2019) show that IT capabilities help organizations capture and recombine knowledge to create new knowledge and succeed in innovation. In the public sector context, Hartley (2011) suggests that public sector innovation can increase with the adoption of IT, as public sector organizations create new services that they cannot offer without proper use of IT. Also, in this regard, Pang et al. (2014) showed a positive relationship between IT capabilities and resources (innovation) and the innovation of public organizations. However, there is little empirical evidence on the nature of this relationship, especially given the public sector context (Hartley, 2011; Pang et al., 2014). That is, there is a gap in scientific knowledge in IT and innovation. More specifically, is a lack of studies that address, in an integrated manner, the relationship between IT human resources, IT capabilities, innovativeness, as well as the interaction impact of these organizational phenomena on overall organizational performance. In other words, this study combines different theoretically related constructs in such a way as to allow structural and simultaneous analysis of the underlying direct and indirect relationships. Guo et al. (2021) explain that the integrated approach is more realistic because it provides broader and more complete results.

This study aims to analyze the organizational performance model of SMEs in the South Sumatra region, which is influenced by entrepreneurial orientation, knowledge integration ability, and innovativeness. Knowledge integration capability is the company's ability to integrate valuable knowledge inside and outside the organization (Guo et al., 2021). IT capabilities (innovation) and knowledge integration capabilities must be present in every learning organization, where companies can achieve efficiency and novelty in business model design. In particular, the information systems (IS) literature that focus on organizational learning processes shows that IT capabilities facilitate easy learning (Lu and Ramamurthy, 2011). Meanwhile, the knowledge management literature describes that the ability to integrate knowledge will be more effective if there is an increase in organizational learning both in terms of quantity and quality of learning content (Santos-Vijande et al., 2012). (Guo et al., 2021). Entrepreneurial orientation refers to a firm's tendency to act independently, take risks and be proactive when faced with market uncertainties (Ferreras-Méndez et al., 2021). Although there are different definitions of entrepreneurial orientation, many existing studies have conceptualized entrepreneurial orientation at the firm level as an aggregate of three core sub-dimensions: innovation, risk-taking, and proactiveness (Bouncken et al., 2016; Patel et al., 2015). The former refers to a company's tolerance for new ideas, experimentation, and creativity as sources of competitive advantage; the second refers to a firm's willingness to make significant and risky resource commitments, and the third captures a company's tendency to take the initiative to compete aggressively against its competitors. The Resources Based View (RBV) theory shows that entrepreneurial orientation is related to different performance dimensions such as sales growth and market share, profitability, and stakeholder satisfaction (Kraus et al., 2022). Although the existing literature suggests that entrepreneurial orientation promotes innovative activities that enhance the introduction and implementation of product innovations within firms, there is still some explicit empirical evidence involving its effect on performance (Moreno-Moya and Munuera-Aleman, 2016). The literature review conducted to identify previous empirical research on the relationship between performance and entrepreneurial orientation attests to the lack of studies assessing the role of entrepreneurial orientation in shaping organizational performance (Ferreras-Méndez et al., 2022).

**Literature Review**

**Business Performance**

According to Resources Based View (RBV), a company's competitive advantage is a unique, rare, and difficult resource for competitors to imitate (Barney, 1991). The heterogeneity approach argues that firms do not achieve competitiveness because of their assets but their competence in making superior use of assets. Effective allocation of resources must be more visionary in business from time to time. Enterprise management includes subjective choices about asset allocation, arrangement, and support. The RBV highlights the firm as a unique pool of resources, but RBV theory explains that not all resources will provide or drive a firm's sustainable competitive advantage. RBV theory also provides the most significant perspective in a strategic context because it shows that resources are essential to driving sustainable competitive advantage and superior company performance (Ferreira & Azvedo, 2007). The item's progress will be a source of competitive advantage and a determinant of the company's victory. The execution appears to be part of the company's general execution based on utilizing the company's assets of interest. In this case, Indonesian SMEs known to have scarce resources have profitable, unusual, entrepreneurial abilities, cannot
Entrepreneurial Orientation (EO)

Industry competition is getting more demanding, and fast market developments suppress the company's competitive advantage (Ojha, Struckell, Acharya, & Patel, 2020). Despite the substantial competitive advantage that high speed brings to the market, it is still one of the most minor understood phenomena in the innovation-related literature (Behrens & Patzelt, 2018). Entrepreneurial orientation is the decision-making processes, practices, and activities that lead to new changes, which indicate more entrepreneurial strategic orientations perform better (McKenny, Short, Ketchen Jr, Payne, & Moss, 2018). EO captures a strategic posture that reflects how companies handle entrepreneurial decisions and actions (Moreno-Moya & Munuera-Aleman, 2016). Ferreras-Méndez et al., (2022) show that the emphasis of EO is on autonomy, competitive aggressiveness, innovation, proactiveness, and risk-taking. EO is one of the prerequisites for organizational success. Researchers show that every organization with a high level of EO tends to be innovative and encourage creative initiatives in developing new products and services, especially in the space of technological advancement and new opportunities. The imbalance that occurs due to the rapid development of technology in developing countries today makes companies have to identify new opportunities. In terms of EO innovation, the novelty in emerging markets can be seen in the development of new forms of low-cost products, especially for sale to low-income groups (Bruton et al., 2013). Similarly, the emerging market environment requires companies to develop and use risk-taking kind to meet customer demands efficiently.

EO is a behavioral construct that considers the actions of entrepreneurs not only in terms of their behavioral intentions but entrepreneurs who proactively accept risks to act and innovate (Dung et al., 2021). EO as a behavioral construct is not an attribute of entrepreneurial culture or entrepreneurial mindset. EO in the context of SMEs with minimal resources and often without employees often adopt Miller/Covin and Slevin's conceptualization of EO as a repeatable and enduring behavioral pattern of action to innovate, accept economically attractive risks, and act proactively to earn profits (Dung et al. al., 2021).

Knowledge integration capability (KIC)

Knowledge integration capability is the organization's ability to create new combinations of different knowledge, which helps solve organizational problems, both from within and outside the organization, across time, and from individual and group contributions, facilitated by formal and social processes. Zahra et al., 2020). Knowledge integration capability is a significant source of competitive advantage, and its significance depends on the efficiency, scope, and flexibility of knowledge integration. Integration efficiency reflects how a company can access and utilize the specialized knowledge held by its members. The scope of integration describes the extent to which specialized knowledge is integrated. Integration flexibility refers to reconfiguring existing knowledge and generating new knowledge. The entrepreneurial orientation explicitly includes the entrepreneurial phase of the company's strategy. Entrepreneurial orientation is an organizational resource that enables companies to differentiate themselves from their competitors through innovation (Ireland, Hitt, & Sirmon, 2003). The distribution of knowledge within the company turns into knowledge creation and circulation of knowledge throughout the business enterprise. This knowledge is then transformed into innovations intended to take advantage of market opportunities. Alshanty & Emeagwali (2019) argue a relationship between entrepreneurial orientation and knowledge formulation. SMEs with a high strategic entrepreneurial orientation are likely to be very proactive and seek and seize opportunities in the market. Acharya et al. (2022) researched 139 small companies showing that EO positively affects KIC and KIC affects organizational innovation through the novelty and strength of relational resource relationships. EO dynamic capabilities are high-level capabilities that can expand, modify, or create static capabilities over time and determine how quickly companies can reorganize their current capabilities and competencies by integrating new knowledge of the requirements and opportunities of the business environment (Guo et al., 2021). The first hypothesis: Entrepreneurial Orientation affects the Knowledge Integration Capability

Innovativeness

Innovativeness is the tendency of organizations to create and support the creation of new products, processes, and services. According to Marchiori et al. (2022), the ability to innovate can be understood as an organization's ability to acquire new knowledge and stimulate learning and exploration of knowledge from the organization's external environment. Innovation involves an organization's ability to exploit and recombine its resources and capabilities, redefining them and presenting innovative results. This understanding shows that the idea of innovation is an important aspect to be developed in the organizational
Knowledge integration capability, innovativeness, and SME's performance

Innovativeness is one of the critical determinants of company performance (Dung et al., 2021), and organizational success is influenced by the innovation ability of the organization, through innovation in finding solutions to organizational problems and challenges, paving the way for organizational success and survival. Innovation makes organizations renew existing practices, stimulate exploratory and experimental activities, and become a force of attraction for creative employees, helping them increase their productivity and reduce their turnover. Organizational innovation refers to an organization's ability to embrace changes imposed by the market, change its business approach, and implement change (Groza et al., 2021). Innovativeness is not just about delivering innovative products. And it involves establishing a culture within the organization that emphasizes innovation in all aspects of its business. In addition to focusing on new product and service development, highly innovative companies often adopt the latest technological advances (Anning-Dorson, 2018). Organizational innovativeness can positively influence various revenue-based performance indicators due to continuously innovative approaches. Collective knowledge structures emerge in an organization which ultimately helps employees absorb knowledge, utilize it and apply it (Guo et al., 2021). Parida et al. (2017) explain that organizations need innovation to create public value in the public sector. The literature also notes other evidence of the positive influence of innovation on organizational performance (Groza et al., 2021).

Method

Sample and Data Collection

This research is quantitative deductive research with hypothesis testing. This research was conducted on 232 SMEs in South Sumatra. The population of this research is SMEs in South Sumatra. The sampling technique used was purposive sampling, with the criteria for SMEs that are still actively operating after the pandemic. SMEs have more than ten employees and have been operating for at least five years. The research sample requirements are set to explain the proposed research variables adequately from the sample data obtained. Data collection techniques with questionnaires. Each item was measured using a 5-point Likert scale.

Variable measurement

The EO variable consists of nine items developed by Hughes & Morgan (2007) and (Dung et al., 2021) obtained from the three dimensions of EO. The organizational innovation variable is measured by five items adapted (Groza et al., 2021). Eight items measured KCI and innovation performance, and four items were adopted from (Guo et al., 2021) and (Acharya et al., 2022).

Data Analysis Technique

Hypothesis testing uses the Structural Equation Modeling (SEM) technique using AMOS 25. This technique is used because of its ability to estimate the relationship of multiple interrelated dependencies, represent concepts that cannot be observed in the relationship, and check for measurement errors in the estimation process (Hair et al., 1998; Byrne, 2001). This study uses a two-step approach to SEM. The steps taken in the two-step approach to SEM are: estimating the measurement model and the structural model. Before processing the data using AMOS 25, the magnitude of the error (ε) is calculated using the formula 0.1.
Hypothesis Testing and Causal Relationships

The direct effect is observed from the standardized regression weights, with a comparative significance test of the CR (Critical Ratio) value which is the same as the \( t \) value with \( t_{\text{table}} \); if \( t \) is greater than \( t_{\text{table}} \) it means that it is significant. From the output of the AMOS 25 program, a causal relationship between variables will also be observed by looking at the direct and indirect effects and their total effects. In the causal model, the problem often faced is the identification problem. In the AMOS program, the solution to overcome this identification problem by providing constraints on the analyzed model is overcome. They were testing the developed model with various Goodness of Fit criteria (Hair et al., 1998). The goodness of fit value measurement is divided into three types, namely absolute fit measures, incremental fit measures, and parsimonious fit measures. Absolute fit measures measure how the overall model predicts the covariance matrix. The interpretation of the results of the latent construct measurement based on the significance level of the loading factor or the lambda coefficient (\( \lambda \)), which is based on the probability value (p), is considered significant if the p-value \( \leq 0.05 \)—furthermore, testing the complete model derived from all significant constructs and indicators to examine the factors affecting organizational performance by observing the path coefficient (standardized regression), direction, magnitude, and significance. The significance assessment is based on the probability value (p), the significance limit used is the p-value \( \leq 0.05 \).

Results and Discussion

Model Description of respondent characteristics

The data collection results showed that the number of SMEs in the handicraft sector was 40%, in general trade at 40%, and in culinary 20. 80% of SMEs have employees between 10 -15 people, while 20% have employees above 15. SMEs' average length of operation in South Sumatra is relatively high; namely, 78.5% have been established for more than 5-10 years and 21.5% for more than ten years. The average turnover per year is relatively low; 21% have a turnover of 10 million to 50 million (rupiah), 77% have a turnover of 50 million to 300 million (rupiah), and 2% have a turnover of 300 million to 500 million Rupiahs. The ownership status of SMEs is their own.

Validity and Reliability

The results of the validity analysis are carried out by confirmatory factor analysis using the AMOS-25 statistical application program. The four primary constructs are and have 24 questions. When confirmatory factor analysis was performed to test construct validity, the 24 instruments were declared to be of good validity because they had factor loadings \( \geq 0.5 \) (MacLean and Gray, 1998). The results of measuring factor loading for each item and construct using confirmatory factor analysis can be seen in Table 1. The internal consistency reliability test results for each construct above show good results because the Cronbach's Alpha coefficient obtained has met the required rules of thumb \( \geq 0.7 \) (Hair et al., 1998; Sekaran & Bougie, 2016). In addition to testing Cronbach's Alpha internal consistency, it is also necessary to reliability and variance extracted. Both tests are still in the corridor of internal consistency testing, giving researchers greater confidence that individual indicators measure the same. The results of the instrument reliability test with construct reliability and variance extracted showed a reliable instrument, which was indicated by the construct reliability value above 0.7. Although this figure is not a "dead" measure if the research conducted is exploratory, a value below 0.70 is still acceptable as long as it is accompanied by empirical reasons seen in the exploration process. And the variance extracted is recommended at a 0.50 level. The results of the calculation of construct reliability and variance extracted can be seen in Table 1.

Evaluation of the model with the Two-Step approach to SEM.

The steps taken in the two-step approach to SEM are: Estimating the measurement model and estimating the structural model. Before processing the data using AMOS 25, the magnitude of the error (\( \varepsilon \)) is calculated using the formula 0.1 times \( \sigma^2 \) and lambda (\( \lambda \)) terms using the formula 0.95 times \( \sigma \) (Anderson and Gerbing, 1988). After the error (\( \varepsilon \)) and lambda (\( \lambda \)) terms are known, these scores are entered as parameters in the analysis of the SEM measurement model. The results of the calculation of the standard deviation, lambda, and error term construct using the two-step approach are shown in Table 2.
Table 1 <Reliability Test>

| NO | CONSTRUCT       | Standardized Factor Loading (SL) | SL^2  | CR      | Standard Error | Variance Extracted | Construct Reliability |
|----|-----------------|---------------------------------|-------|---------|----------------|--------------------|-----------------------|
| 1  | EO1 ← EO        | 0.665                           | 0.442 | 11.128  | 0.049          | > 0.5              | > 0.7                 |
|    | EO2 ← EO        | 0.805                           | 0.648 | 16.627  | 0.053          |                    |                       |
|    | EO3 ← EO        | 0.592                           | 0.350 | 7.685   | 0.047          |                    |                       |
|    | EO4 ← EO        | 0.593                           | 0.352 | 9.609   | 0.049          |                    |                       |
|    | EO5 ← EO        | 0.793                           | 0.629 | 14.29   | 0.056          |                    |                       |
|    | EO6 ← EO        | 0.679                           | 0.461 | 11.459  | 0.062          |                    |                       |
|    | EO7 ← EO        | 0.833                           | 0.694 | 15.424  | 0.057          |                    |                       |
|    | EO8 ← EO        | 0.850                           | 0.723 | -       | -              |                    |                       |
|    | Total           | 5.810                           | 4.299 | 0.373   |                |                    |                       |

Table 2 <Standard Deviation, Lambda dan Error Term>

| Construct                              | Standard Deviation (σ) | Lambda (λ) | Error (ε) |
|----------------------------------------|------------------------|------------|-----------|
| Entrepreneurial Orientation (EO)       | 0.895                  | 0.850      | 0.084     |
| Knowledge Integration Capability (KIC) | 0.949                  | 0.880      | 0.120     |
| Innovativeness                         | 0.888                  | 0.870      | 0.039     |
| Organizational Performance (OP)        | 0.853                  | 0.810      | 0.068     |

The results of testing the structural equation model with the AMOS 25 program can be seen in Figure 1. Evaluation of the results of testing the model can be seen in Table 3.
Knowledge integration capability, innovativeness 

**Figure 1. Performance Model of SMEs**

**Table 3: Evaluation Criteria Goodness of Fit Indices**

| Criteria       | Results  | Critical Value *) | Model Evaluation |
|----------------|----------|-------------------|------------------|
| Cmin/DF        | 1.7965   | ≤ 2.00            | Good             |
| Probability    | 0.333    | ≥ 0.05            | Good             |
| RMSEA          | 0.073    | ≤ 0.08            | Good             |
| GFI            | 0.959    | ≥ 0.90            | Good             |
| TLI            | 0.982    | ≥ 0.95            | Good             |
| CFI            | 0.961    | ≥ 0.94            | Good             |

The results of the evaluation of the proposed model turned out that most of the criteria used were good, meaning that the proposed model was good and acceptable. Furthermore, Table 4 shows the relationship between variables and the results of testing the proposed hypothesis.

**Table 4: Path Coefficient (Standardize Regression) between Variables**

|                      | Standardized Regression | Estimate | CR     | Probability (p) | Hypothesis |
|----------------------|-------------------------|----------|--------|-----------------|------------|
| Entrepreneurial Orientation ➔ KIC | 0.646                   | 0.498    | 12.791 | ***             | Supported  |
| KIC ➔ Innovativeness  | 0.700                   | 0.857    | 14.834 | ***             | Supported  |
| Innovativeness ➔ SMEs Performance | 0.694                   | 0.648    | 13.022 | ***             | Supported  |
| KIC ➔ SMEs Performance | 0.165                   | 0.189    | 3.096  | 0.002           | Supported  |

Hypothesis testing (alternative) compares the probability (p) value. The hypothesis is said to be significant if the p-value ≤ 0.05. With these criteria, it can be seen that all paths are significant, and the results of previous empirical research can support all the hypotheses proposed in this study.

**Discussion**

This study examines an SME performance model involving 232 SMEs in South Sumatra. An organizational performance model influenced by entrepreneurial orientation, knowledge integration ability, and innovativeness has a good fit model. The results of the study expand on the findings that previous researchers have produced, including (Ferreras-Méndez et al., 2021); (Guo et al., 2021); (Groza et al., 2021); (Marchiori et al., 2022); and (Acharya et al., 2022). The results of this study indicate that the integration of knowledge and innovation of SMEs is essential in improving the performance of SMEs. On the other hand, entrepreneurial orientation also has an essential role in creating SME innovation and encouraging the creation of SMEs’ knowledge integration capabilities and performance. Integration efficiency reflects how a company can access and utilize the specialized knowledge held by its members, and the scope of integration describes the integrated specialized knowledge. Integration flexibility refers to reconfiguring existing knowledge and generating new knowledge. It can be seen that these SMEs have an excellent entrepreneurial orientation which can be seen from the ability to capture ideas. Creativity is always focused on adopting innovations and taking other competitive actions that other SMEs often imitate.
Conclusion

This good entrepreneurial orientation can improve the ability of the SME sector to integrate the knowledge possessed by its employees. SMEs can integrate the knowledge of different employees to work together in fostering SME innovation. The effect of entrepreneurial orientation on the ability to integrate knowledge is 65%. The ability to integrate knowledge which is demonstrated by integrating team knowledge, technology, new knowledge, and acquiring technical knowledge quickly, can increase the innovation of SMEs. The innovativeness of SMEs is shown by the skills of SMEs in innovating and the ability to find new ideas in solving problems that exist in SMEs. The effect of this knowledge integration ability on innovativeness is 70%. The indirect effect of knowledge orientation on the performance of SMEs through knowledge integration capacity is 48.6% and through innovation is 45.2%. The indirect effect of entrepreneurial orientation on integrating knowledge and innovation is 42%. The ability to integrate knowledge and influence innovation can also directly affect organizational performance. Unfortunately, the direct effect of knowledge integration on the performance of SMEs is relatively small, only 16%. The ability to integrate knowledge turns out to have a better role as a mediating variable, which links entrepreneurial orientation and the performance of SMEs. The effect of innovation on organizational performance is 69%. The increase in the performance of SMEs can be seen from the improvement in internal and customer services, the ability to manage resources well, few complaints from employees, and in general, the performance is increasing from time to time.

Limitations of research and suggestions for further researchers

This study only analyzes SMEs that have successfully survived the Covid-19 pandemic and does not observe SMEs that failed to adapt to the crisis caused by the Covid-19 pandemic. In the future, it is better to re-examine those SMEs which cannot adapt to the crisis and which can adapt to the crisis so that better research findings and more precise generalizations can be obtained. Regarding the significant increase in technology during the pandemic and after the new standard, further research can add the variable of HR capability in adopting IT and IT human capital (Marchiori et al., 2022) to strengthen the performance model of SMEs in conditions of need. Information Technology is getting higher.

References

Acharya, C., Ojha, D., Gokhale, R., & Patel, P. C. (2022). Managing information for innovation using knowledge integration capability: The role of boundary spanning objects. International Journal of Information Management, 62, 102438. https://doi.org/10.1016/j.ijinfor.2021.102438

Alshanty, A. M., & Emeagwali, O. L. (2019). Market-sensing capability, knowledge creation and innovation: The moderating role of entrepreneurial orientation. Journal of Innovation & Knowledge, 4(3), 171–178. https://doi.org/10.1016/J.JIK.2019.02.002

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103(3), 411–423.

Anning-Dorson, T. (2018). Customer involvement capability and service firm performance: The mediating role of innovation. Journal of Business Research, 86(3), 269–280. https://doi.org/10.1016/j.jbusres.2017.07.015

Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99–120.

Behrens, J., & Patzelt, H. (2018). Incentives, resources and combinations of innovation radicalness and innovation speed: Innovation radicalness and innovation speed. British Journal of Management, 29(4), 691–711. https://doi.org/10.1111/1467-8551.12265

Bouncken, R. B., Kraus, S., & Roig-Tierno, N. (2021). Knowledge- and innovation-based business models for future growth: Digitalized business models and portfolio considerations. Review of Managerial Science, 15(1), 1–14. https://doi.org/10.1007/s11846-019-00366-z

Bruton, G. D., Ketchen Jr, D. J., & Ireland, R. D. (2013). Entrepreneurship as a solution to poverty. Journal of business venturing, 28(6), 683-689. https://doi.org/10.1016/j.jbusvent.2013.05.002

Byrne, B. M. (2001). Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument. International journal of testing, 1(1), 55-86. https://doi.org/10.1027/S15327574UT0101_4

Chen, J.S., Tsou, H.T., (2012). Performance effects of IT capability, service process innovation, and the mediating role of customer service. Journal of Engineering Technology Management. 29 (1), 71–94. https://doi.org/10.1016/j.jengtecman.2011.09.007
Chen, Y., Wang, Y., Nevo, S., Benitez-Amado, J., Kou, G., (2015). IT capabilities and product innovation performance: the roles of corporate entrepreneurship and competitive intensity. *Information & Management*, 52(6), 643–657. https://doi.org/10.1016/j.im.2015.05.003

Dong, J.Q., Yang, C.H., (2019). Information technology and innovation outcomes: is knowledge recombination the missing link? *European Journal of Information Systems*. 28(6), 612–626. https://doi.org/10.1080/0960085X.2019.1627489

Dung, T. Q., Bonney, L. B., Adhikari, R., & Miles, M. P. (2021). Entrepreneurial orientation and vertical knowledge acquisition by smallholder agricultural firms in transitional economies: The role of interfirm collaboration in value-chains. *Journal of Business Research*, 137, 327–335. https://doi.org/10.1016/j.jbusres.2021.08.054

Ferreira, J., & Azevedo, S. (2007). Entrepreneurial orientation as a main resource and capability on small firm’s growth. Online at https://mpra.ub.uni-muenchen.de/5682/ MPRA Paper No. 5682, posted 10 Nov 2007 02:56 UTC

Ferrer-Méndez, J. L., Llopis, O., & Alegre, J. (2022). Speeding up new product development through entrepreneurial orientation in SMEs: The moderating role of ambidexterity. *Industrial Marketing Management*, 102, 240–251. https://doi.org/10.1016/j.indmarman.2022.01.015

Ferrer-Méndez, J. L., Olmos-Peñuela, J., Salas-Vallina, A., & Alegre, J. (2021). Entrepreneurial orientation and new product development performance in SMEs: The mediating role of business model innovation. *Technovation*, 108, 102325. https://doi.org/10.1016/j.technovation.2021.102325

Gould-Wilborns, J. (2003). The importance of HR practices and workplace trust in achieving superior performance: a study of public-sector organizations. *International Journal of Human Resource Management*, 14(1), 28-54. https://doi.org/10.1080/09585190210158501

Groza, M. D., Zmich, L. J., & Rajabi, R. (2021). Organizational innovativeness and firm performance: Does sales management matter? *Industrial Marketing Management*, 97, 10–20. https://doi.org/10.1016/j.indmarman.2021.06.007

Guo, J., Zhou, S., Chen, J., & Chen, Q. (2021). How information technology capability and knowledge integration capability interact to affect business model design: A polynomial regression with response surface analysis. *Technological Forecasting and Social Change*, 170, 120935. https://doi.org/10.1016/j.techfore.2021.120935

Hair, J. F., Anderson, R. E., Tatham, R. L., & Black, W. C. (1998). *Multivariate data analysis*. Upper Saddle River, New Jersey: Prentice-Hall.

Hartley, J., (2011). *Public Value through Innovation and Improvement*. In: Macmillan, Palgrave (Ed.), Public Value Theory and Practice. Houndmills, 171–184.

Hughes, M., Hughes, P., & Morgan, R. (2007). Exploitative learning and entrepreneurial orientation alignment in emerging young firms: Implications for market and response performance. *British Journal of Management*, 18(4), 359–375. https://doi.org/10.1111/j.1467-8551.2007.00519.x

Hult, G., Ketchen, D., & Slater, S. (2004). Information processing, knowledge development, and strategic supply chain performance. *Academy of Management Journal*, 47(2), 241–253. https://doi.org/10.5465/20159575

Hyytinen, A., Pajarinen, M., & Rouvinen, P. (2015). Does innovativeness reduce startup survival rates? *Journal of Business Venturing*, 30(4), 564-581. https://doi.org/10.1016/j.jbusvent.2014.10.001

Ireland, R. D., Hitt, M. A., & Sirmon, D. G. (2003). A model of strategic entrepreneurship: The construct and its dimensions. *Journal of Management*, 29(6), 963-989. https://doi.org/10.1016/S0149-2063(03)00086-2

Jantunen, A., Puumalainen, K., Saarenketo, S., & Kyläheiko, K. (2005). Entrepreneurial orientation, dynamic capabilities and international performance. *Journal of International Entrepreneurship*, 3(3), 223-243. https://doi.org/10.1016/S1084-3055(10)10553-2

Kraus, P., Stokes, P., Tarba, S. Y., Rodgers, P., Dekel-Dachs, O., Britzelmaier, B., & Moore, N. (2022). The ambidextrous interaction of RBV-KBV and regional social capital and their impact on SME management. *Journal of Business Research*, 142, 762–774. https://doi.org/10.1016/j.jbusres.2021.12.047

Lu, Y., Ramamurthy, K., (2011). Understanding the link between information technology capability and organizational agility: an empirical examination. *MIS Quarterly*, 35 (4), 931–954. http://dx.doi.org/10.2307/41409967

MacLean, S., & Gray, K. (1998). Structural equation modeling in market research. *Journal of the Australian Market Research Society*, 6, 17-32.

Marchiori, D. M., Rodrigues, R. G., Popadiuk, S., & Mainardes, E. W. (2022). The relationship between human capital, information technology capability, innovativeness and organizational performance: An integrated approach. *Technological Forecasting and Social Change*, 177, 121526.
Knowledge integration capability, innovativeness ...

McKenny, A. F., Short, J. C., Ketchen, D. J., Jr., Payne, G. T., & Moss, T. W. (2018). Strategic entrepreneurial orientation: Configurations, performance, and the effects of industry and time. Strategic Entrepreneurship Journal, 12(4), 504–521. https://doi.org/10.1002/sej.1291

Muhtarom, A., Syairozi, M. I., & Yonita, H. L. (2022). Analisis Persepsi Harga, Lokasi, Fasilitas, dan Kualitas Pelayanan terhadap Loyalitas Pelanggan Dimerkai Keputusan Pembelian (Studi Kasus pada Umkm Skck (Stasiun Kuliner Canditunggal Kalitengah) Metode Structural Equation Modelling (SEM)-Partial Least. EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis, 10(S1), 391-402.

Muhtarom, A., Syairozi, M. I., & Rismayati, R. D. (2022). Analisis Citra Merek, Harga, Kualitas Produk Dan Promosi Terhadap Keputusan Pembelian Dimerkai Minat Beli Pada Umkm Toko Distributor Produk Skincare Kfskin Babat Lamongan. Derivatif: Jurnal Manajemen, 16(1), 36-47.

Pang, C., Wang, Q., Li, Y., Duan, G., 2019. Integrative capability, business model innovation and performance. Europ. Journal Innovative Management. 22 (3), 541–561.

Parida, V., Pesamäa, O., Wincent, J., Westerberg, M., (2017). Network capability, innovativeness, and performance: a multidimensional extension for entrepreneurship. Entrepreneurship & Regional Development, 29 (1–2), 94–115. https://doi.org/10.1080/08985626.2016.1255434

Patel, P. C., Struckell, E. M., Ojha, D., & Manikas, A. S. (2020). Retail store churn and performance–The moderating role of sales amplitude and unpredictability. International Journal of Production Economics, 222, Article 107510.

Santos-Vijande, M. L., López-Sánchez, J. Á., & Trespalacios, J. A. (2012). How organizational learning affects a firm’s flexibility, competitive strategy, and performance. Journal of business research, 65(8), 1079-1089. https://doi.org/10.1016/j.jbusres.2011.09.002

Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill-building approach. John Wiley & Sons.

Syairozi, M. (2015). Pengaruh Faktor Eksternal (Inflasi, Bunga) Dan Faktor Internal (Bagi Hasil, Jumlah Bank) Terhadap Deposito Mudharabah Pada Perbankan Syariah Di Indonesia (Doctoral dissertation, Universitas Brawijaya).

Syairozi, M. I. (2021). Analisis Kemiskinan di Sektor Pertanian (Studi Kasus Komoditas Padi di Kabupaten Malang). Media Ekonomi, 28(2), 113-128.

Zahra, S.A., Neubaum, D.O., Hayton, J., (2020). What do we know about knowledge integration: fusing micro-and macro-organizational perspectives. Academy of Management Annal. 14 (1), 160–194. https://doi.org/10.5465/annals.2017.009