







Model of the influence of Entrepreneurial Leadership on optimizing the benefits of Knowledge to improve Customer Experience

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Abstract. Customer experience is increasingly becoming a critical differentiating factor for companies and brands. This research examines the impact of Entrepreneurial Leadership (EL) on optimizing the benefits of Knowledge to improve Customer Experience Orientation Behaviour in the knowledge-intensive industry. The study utilizes a quantitative research methodology, including random sampling stratification techniques and the Structural Equation Model, to investigate the relationship between Entrepreneurial Leadership, Knowledge Management, Knowledge Utilization, Innovative Work Behaviour, and Customer Experience Orientation Behaviour (CEOTB). Data was collected through questionnaires from 215 respondents in the Defence Industry cluster. The results demonstrate the importance of entrepreneurship-oriented leadership in shaping a positive customer experience. Furthermore, the study highlights the significance of knowledge management, knowledge utilization, and innovative work behaviour in enhancing the company's orientation towards customer experience

Keywords: Customer Experience, Entrepreneurial Leadership, Innovative Work, Knowledge Management, Knowledge Utilization, Behaviour, Orientation Behaviour.

1 Introduction

Customer orientation refers to an individual's dedication to providing excellent customer service. This commitment encompasses both the products and services offered by a company. Often, a company not only manufactures a product, but also provides a corresponding service. Both forms of offerings from a company (in the form of goods and services) are easily replicated by competitors in today's age of readily available information. As such, it is crucial to distinguish the quality of the same product and service from various provider companies through customer experience.

In 2006, the New York Times reported on the newly emerging role of the C-Suite, specifically the Chief Experience Officer (CXO), who is responsible for overseeing the organization's overall product and service experience. As user experience (UX) is becoming a critical factor in modern business success, CXOs are charged with integrating

holistic experience design into the company's strategy and culture, as emphasized by Wikipedia. CXO serves as an intermediary between external customers and internal resources, fostering a harmonious relationship between the two in terms of mutual expectations and experiences.

To maintain a position of dominance in the competitive landscape, it is imperative that the company not only alter its corporate culture, but also manage knowledge in a manner that encompasses all aspects of its operations. This includes technology acquisition, customer engagement, collaboration with the ecosystem in the community of practice, and the management of knowledge as a catalyst for innovation [1].

In order to effectively manage change, it is crucial for leaders to possess a customer-focused mindset and have a deep understanding of business models that can drive innovation. Leaders with an entrepreneurial spirit are particularly important in driving radical changes in companies such as State-Owned Enterprises, where all companies incorporated in the Indonesian Defence Industry Holding have a diverse business scope, encompassing both technology-intensive products and services, as well as EPC (Engineering, Procurement, Construction) and MRO (Maintenance, Repair and Overhaul) services.

This research aims to reinforce the current model by applying it to state-owned enterprises with diverse cultural traits, complex stakeholders, and an insistence on continuous product innovation, while considering the unique challenges presented by dual-use technology that demands contrasting strategies for military and civilian applications.

This study serves to demonstrate that innovative behavior is not solely contingent upon the implementation of a Knowledge Management program, but is also dependent upon the entrepreneurial leadership of an individual who is capable of effectively utilizing the managed knowledge to create products and services that cater to customer requirements.

1.1 Entrepreneurial Leadership

Entrepreneurial behavior has become an increasingly crucial aspect of organizational success, promoting innovation and adaptability in response to environmental changes. This requires the adoption of entrepreneurial attitudes and behaviors by employees at all levels of the organization. This trend is reflected in the growing body of research exploring the dynamics of Entrepreneurial Behaviour within organizations [2].

Empirical results from [2] show that ENTRELEAD is reliable and legitimate. Validity tests have shown that founders receive higher scores in Entrepreneurial Leadership when rated by their employees than non-founders. The eight-item ENTRELEAD scale measures perceptions directly influenced by leaders:

1. Often come up with radical improvements to the idea for our product/service sales
2. Often come up with a complete idea of new products/services that we can sell
3. Take risks
4. Have creative solutions to problems
5. Show love for their work
6. Have a vision for the future of our business

7. Challenging and encouraging me to act in more innovative ways
8. Want me to challenge the way we currently do business

Entrepreneurial leadership plays a crucial role in the innovation management/innovation process, and organizations must prioritize the development of such leadership at all levels. This leadership is characterized by its strategic, communicative, motivational, and personal/organizational discipline dimensions, which facilitate the management of the innovation process. It is essential that organizations foster the growth of entrepreneurial leadership to effectively manage the innovation process.

Based on a study conducted by [3] entrepreneurial leadership has a significant impact on the idea generation phase, followed by idea selection, idea development, and idea diffusion. This indicates that entrepreneurial leadership serves as a crucial catalyst for fostering innovative organizations.

1.2 Innovative Work Behaviour

Nowadays, the ability to continuously innovate products, services and work processes is crucial for organizations [4]. In this research we focus on innovation at the level of individuals in organizations. Individuals' actions are of crucial importance for continuous innovation and improvement. In the past, a distinction was made between innovation and creativity. Creativity refers to generating and exploring new ideas, while innovation involves the championing of such concepts [4]. Some studies have also included the generation and implementation of new ideas in the evaluation of individuals' innovative behaviour [5,6].

The study conducted on facility management service providers in Oman found that leadership has a crucial impact on the innovative work behavior of employees. The research also revealed that employee motivation partially mediates the relationship between leadership and innovative work behaviors among employees. The findings indicate that the level of innovative work behavior among employees is relatively high. Therefore, it is imperative to recognize the importance of leadership and motivation in promoting innovative work behaviors among employees [7].

1.3 Knowledge Management

A review of the literature in this paper has revealed that Knowledge Management (KM) has become a ubiquitous function in business organizations over the past two decades. The body of literature on various aspects of KM and its implementation has grown exponentially. The significance of KM to organizational competitive advantage is now widely acknowledged in management literature, with the understanding that efficient and effective KM leads to superior organizational performance.

The significance of the influence of Knowledge Management on performance is a topic of utmost interest to scholars in the field of Knowledge Management. The performance of Knowledge Management refers to the degree to which the utilization of organizational resources contributes to the success of Knowledge Management objectives. The paper also highlights several investigations that have explored the correlation between knowledge management processes and organizational performance.

1.4 Knowledge Utilization

Knowledge utilization plays an important role in the relationship between the knowledge management process and knowledge management performance[8]. This study lends empirical backing to the viewpoint and underscores the significance of leveraging knowledge in multiple aspects of organizational performance. Nevertheless, it does not explicitly analyze the correlation between knowledge management performance and overall organizational performance.

1.5 Customer Experience Orientation Behavior

The significance of customer experience as a differentiating factor for companies and their brands is increasingly being acknowledged. Companies are now placing greater emphasis on experience excellence in relation to customer loyalty and are taking steps to manage this customer experience. The role of Knowledge Management and Organizational Culture Change Management in improving Customer Experience Management [1]. This paper conceptually only investigates the role of Knowledge Management and Organizational Culture Change Management in improving Customer Experience Management. Future research will be required to empirically test any relationships that the framework exhibits. Such research can be conducted with a view to critically evaluating the relationships in light of other existing theories, with a view to enhancing the overall academic robustness of the framework.

2 Methods

Based on the results of numerous literature reviews and prior research, it is possible to construct a skeleton model, as depicted in **Fig. 1**, to represent the Entrepreneurial Leadership Influence Model in relation to the optimization of knowledge benefits to enhance customer experience. The following hypotheses have been proposed to guide the inquiry:

- H1: Entrepreneurial Leadership positively influences Innovative Work Behaviour
- H2: Entrepreneurial Leadership positively affects Knowledge Management
- H3: Entrepreneurial Leadership has a positive effect on Knowledge Utilization
- H4: Knowledge Management positively affects Knowledge Utilization
- H5: Knowledge Management positively influences Innovative Work Behaviour
- H6: Knowledge Utilization Positively Affects Innovative Work Behaviour
- H7: Knowledge Management positively influences customer-oriented behaviour
- H8: Knowledge utilization positively affects customer-oriented behaviour
- H9: Innovative Work Behaviour has a positive effect on customer-oriented behavior

The survey was conducted from May 28, 2023, to June 14, 2023, targeting employees within the Defence Industry Holding SOEs, which comprised PT Len Industri, PT Pindad, PT Dirgantara Indonesia, PT PAL, and PT Dahana. A total of 215 respondents filled out the questionnaire, and 215 questionnaires were found to be valid. This number met the minimum criteria for data analysis feasibility using the Structural Equation Model/SEM.

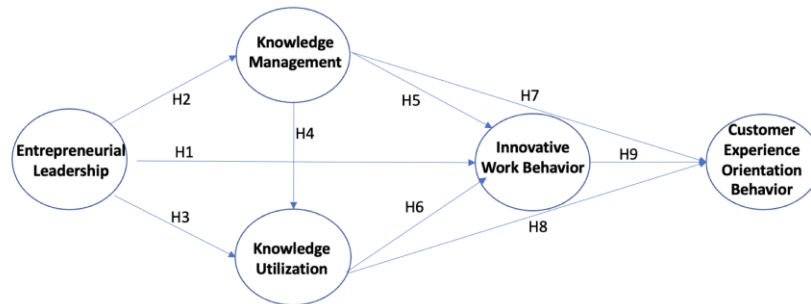


Fig. 1. Entrepreneurial Leadership Influence Model in optimizing the benefits of Knowledge to improve Customer Experience

Descriptive analysis is utilized for demographic profiling, with the gender of respondents predominantly male (85%). The employment status of employees is relatively even, with 54% classified as permanent and 46% as definite time. The majority of respondents (57%) fall within the millennial age group (less than 10 years of service) and 36% fall within the 10 to 20 year category. Only 7% have worked for more than 20 years. The majority of respondents (88%) are situated in the core operation environment (Operation/Production, Engineering/Planning, Procurement), while 12% are from the Marketing environment and other areas.

3 Result and Discussion

All indicators contained in the related latent variable are significant and above the recommended value of 0.50 [9]. Consisting indicators, loading, convergent validity and reliability. While in this study used a limit of 0.7 in accordance with the standards of SmartPLS which is used as data processing. This shows the convergent validity of the constructs in the measurement model. The construct AVE value is also above the 0.50 level, which proves the sufficient convergent validity of the measurement model [10]. Cronbach Alpha and CR values are all above the recommended level of 0.70, which indicates that the internal reliability of the construct is acceptable [9].

The square root values of AVEs, presented on diagonals, are above the correlations between constructs. This suggests that the discriminant validity of the construction has been achieved [10]. While the last test conducted on the Inner Model (Structural Model) is the Fit Model Test. The limitations or criteria of the fit model include: RMS Theta value or Root Mean Square Theta < 0.102, SRMR value or Standardized Root Mean Square < 0.10 or < 0.08 and NFI value > 0.9. One of the criteria in the form of SRMS worth 0.061 is located where < 0.08 so that the Structural Model can be bound to Fit.

3.1 Hypothesis Testing

This study proposes nine hypotheses based on observations and the aims and objectives of the study by referring to theoretical approaches on entrepreneurial leadership behavior and customer-oriented behavior.

Table 1. Indicators, loading, convergent validity dan reliability

Construct	Load- ing	a	CR	AVE
<i>Entrepreneurial Leadership</i>		0.89	0.89	0.61
EL1. Often the idea of radical improvements to the products / services we sell	0.78			
EL2. Ideas often come up about completely new products/services that we can sell	0.79			
EL3. Have creative solutions to problems	0.79			
EL4. Show passion for his work	0.76			
EL5. Have a vision of the future of our business	0.82			
EL6. Challenging and encouraging me to act more	0.76			
EL7. Want me to challenge the way we do business today	0.77			
<i>Knowledge Management</i>		0.88	0.89	0.63
KM1. The organization always holds knowledge creation activities, namely conferences, seminars and trainings	0.71			
KM2. Personnel are constantly interested in the acquisition of knowledge for work practices, both from inside and outside the organization	0.81			
KM3. Personnel have the ability to acquire specialized knowledge from other experts from inside and outside the organization	0.83			
KM4. Personnel have an interest in and see past lesson values or best practices, or standard practices	0.79			
KM5. Personnel are able to constantly present their new thoughts and knowledge that are beneficial to the work of the organization	0.84			
KM6. Personnel continuously disseminate knowledge from best practices to shared knowledge learning	0.78			
<i>Knowledge Utilization</i>		0.90	0.90	0.71
KU1. Organizational personnel tend to think of utilizing knowledge in problem solving	0.87			
KU2. Personnel hold the values of knowledge dissemination and are involved in applying shared knowledge among organizational units	0.84			
KU3. Personnel hold the values of disseminating knowledge and are involved in applying knowledge with other units unofficially	0.82			

KU4. Personnel are enthusiastic in teamwork, do not distinguish organizational units	0.82			
KU5. Personnel apply past lessons or best practices to develop their work or create successful innovations	0.86			
Innovative Work Behaviour		0.93	0.93	0.70
IWB1. Produce original solutions to solve problems	0.75			
IWB2. Discover new approaches to running tasks	0.83			
IWB3. Make core members of the organization enthusiastic for innovative ideas	0.84			
IWB4. Trying to convince people to support an innovative idea	0.86			
IWB5. Systematically introduce innovative ideas into work practice	0.84			
IWB6. Contribute to the implementation of new ideas	0.87			
IWB7. Expending real effort in the development of new things	0.85			
Customer Experience Orientation Experience		0.94	0.94	0.73
CEB1. Believe that customers are one of the important sources of effective knowledge	0.84			
CEB2. Take the time and energy to listen to customer experiences in using our products	0.89			
CEB3. Create a system to collect customer feedback	0.72			
CEB4. Maintain a rhythm of interaction with customers to make them free to communicate any input	0.89			
CEB5. Update information to customers in a timely manner whenever we have a solution related to their mission and operational objectives	0.89			
CEB6. Seeking information whenever customers have experience in using our products	0.89			
CEB7. Believing that behind customer complaints there is always an opportunity to create novelty and innovation	0.87			

Notes: a = Cronbach's α ; CR = Composite Reliability; AVE= Average Variance Extracted

Based on the calculation results through SmartPLS, it was found that the T-Statistic was 2.404 and the p-value was <0.05 so that **Hypothesis 1** was accepted, where Entrepreneurial Leadership had a positive effect on Innovative Work Behavior significantly.

The results of testing **Hypothesis 2**, obtained T-Statistics of 11,871 and p-value <0.05 so that Hypothesis 2 is accepted, where Entrepreneurial Leadership has a positive effect on Knowledge Management significantly.

The results of testing **Hypothesis 3**, obtained a T-Statistic value of 0.779 and a p-value of >0.05 , so that Hypothesis 3 was rejected, where Entrepreneurial Leadership did not have a positive effect on Knowledge Utilization.

The results of testing **Hypothesis 4**, obtained a T-Statistic value of 10,694 and a P-value of <0.05 , so that Hypothesis 4 is accepted where Knowledge Management has a positive effect on Knowledge Utilization significantly.

The results of testing **Hypothesis 5**, obtained a T-Statistic value of 3.228 and a P-value of <0.05 , so that Hypothesis 5 is accepted where: Knowledge Management has a significant positive effect on Innovative Work Behavior.

The results of testing **Hypothesis 6**, obtained a T-Statistic value of 5.093 and a P-value of <0.05 , so that Hypothesis 6 is accepted where Knowledge Utilization has a positive effect on Innovative Work Behavior significantly.

The results of testing **Hypothesis 7**, obtained a T-Statistic value of 0.494 and a P-value of >0.05 , so that Hypothesis 7 was rejected where Knowledge Management did not directly affect Customer Experience Orientation Behavior.

The results of testing **Hypothesis 8**, obtained a T-Statistic value of 1.129 and a P-value of >0.05 , so that Hypothesis 8 is rejected where Knowledge Utilization does not directly affect Customer Experience Orientation Behavior.

The results of testing **Hypothesis 9**, obtained a T-Statistic value of 7.295 and a P-value of <0.05 , so that Hypothesis 9 is accepted where Innovative Work Behavior has a positive effect on Customer Experience Orientation Behavior significantly.

3.2 Mediation Analysis

To examine the mediating role of Knowledge Management between Entrepreneurial Leadership and Knowledge Utilization was carried out, first, the relationship between the independent variable Entrepreneurial Leadership to the dependent variable Knowledge Management confirmed that Entrepreneurial Leadership had a significant positive effect on Knowledge Management. Second, Knowledge Management has a significant positive effect on Knowledge Utilization. Third, Entrepreneurial Leadership does not have a positive effect on Knowledge Utilization. From this it can be concluded that Knowledge Management fully mediates the relationship between Entrepreneurial Leadership and Knowledge Utilization.

The same is true of the Innovative Work Behavior mediating role between Entrepreneurial Leadership and Customer Experience Orientation Behavior, where the direct relationship between the independent variable Entrepreneurial Leadership and the dependent variable Customer Experience Orientation Behavior confirmed that Entrepreneurial Leadership has a significant positive effect on Innovative Work Behavior. Meanwhile, Entrepreneurial Leadership indirectly mediated by Knowledge Management also has a significant positive effect on Innovative Work Behavior. Thus, it can be concluded that Knowledge Management partially mediates the influence of Entrepreneurial Leadership on Innovative Work Behavior.

Meanwhile, Entrepreneurial Leadership indirectly through Knowledge Utilization does not have a positive effect on Innovative Work Behavior. While Entrepreneurial Leadership indirectly through Knowledge Management and Knowledge Utilization simultaneously has a positive effect on Innovative Work Behavior where the influence is felt greater than KM's direct mediation of Entrepreneurial Leadership on Innovative Work Behavior. From this it can be concluded that Knowledge Management simultaneously with Knowledge Utilization has a more significant influence than Knowledge Management mediation alone

4 Conclusion

The main mediation role to be seen from this study is the mediation of Knowledge Management to Entrepreneurial Leadership, which is proven to fully mediate the relationship between Entrepreneurial Leadership and Knowledge Utilization. Meanwhile, Knowledge Management partially mediates influence of Entrepreneurial Leadership on Innovative Work Behaviour. Knowledge Management simultaneously with Knowledge Utilization has a more significant influence than the mediation of Knowledge Management alone.

This research has confirmed the previous findings that a comprehensive Knowledge Management program, when complemented by the leadership of an individual possessing an entrepreneurial character and capable of effectively utilizing the collected knowledge, can significantly impact innovative work behavior.

The practical consequence of this paper is that organizations must concentrate on the utilization of knowledge to enhance their knowledge management performance. This can be accomplished by implementing efficient knowledge management processes, such as knowledge creation, acquisition, sharing, and storage. The study's findings indicate that organizations that effectively utilize their knowledge resources are more likely to achieve superior outcomes that align with customer expectations. One reason for knowledge utilization is the interaction with customers and jointly defining the desired product or service through co-creation. Therefore, organizations must invest in creating a culture that values knowledge sharing and collaboration, and provides employees with the tools and resources necessary to manage and utilize knowledge effectively.

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