



Coopetition Strategy in Property Business – A Case Study on Corporations of Regional Real Estate Association

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Abstract

The management of a real estate corporation wants to have a strategy to achieve effective and efficient performance with dynamic environmental conditions. The purpose of this study is to understand the strategy of coopetition, which is expected to answer the environmental dynamics of technological change and the corporation's ability to innovate. This study aims to determine the coopetition strategy that can be built in real estate companies from the influence of technological change as an external factor and the influence of innovation ability as an internal factor, so this research method uses a descriptive-explanation approach. Therefore, the research method is designed to describe and explain technological changes and innovation capabilities that affect the coopetition strategy. The research instrument was used to collect data through a multilevel scale, interviews, and observations from the analysis unit of property companies that are members of the real estate industry association. Data processing using PLS-SEM with a minimum sample of 10 times the maximum arrow pointing to the latent variable so that the minimum number of samples in this study was 20 samples, but for more precise data, it was enlarged to 32 samples. The research model using the hierarchical component model produces a total value of the effect on the coopetition strategy from a technological change of 0.617, while the innovation ability is 0.416. This finding shows that technological changes in the property industry are significant and more influential than innovation capabilities. Technological changes are also significant, with an effect of 0.458 on the ability to innovate. The coopetition strategy from the competitive aspect is most influenced by technological changes and innovation capabilities compared to the cooperative aspect. In the end, this research has technical limitations on the coverage of the project area and the domicile of the corporation in relation to the pandemic regulations that apply in the field; however, it is carried out according to scientific principles. The novelty of this research from previous research is that the strategy of coopetition in the property industry has not been studied in depth apart from taking into account the corporations.

Keywords *Coopetition Strategy, Technology Change, Innovation Capability, Property Business, Real-Estate Corporations*

INTRODUCTION

The property business strategy model designed with research needs to carry out environmental scanning as a driver to identify and analyze the conditions of the commercial real estate market. Environmental scanning in the commercial real estate market has several categories that represent strengths and are identified as major influences in the property industry, including globalization, environmental pressure, and technology (Toivonen & Viitanen, 2016). This environmental scan helps managers to better understand market developments and aids strategic planning efforts (Lester & Parnell, 2008); in addition, environmental scanning through external environmental information can be used in strategic decision-making by organizations so that companies can act quickly, adapt to strategies at the right time and guard against future threats and constraints (May, Stewart, & Sweo, 2000).

The real estate industry needs to develop a strategy that can regulate companies and prepare companies to face challenges which in strategic management are referred to as globalization, innovation, and sustainability (Wheelen et al., 2018). Competitive conditions and capabilities forced the real estate industry to develop a more service-oriented approach (Palm, 2011), and

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strategies in commercial property or real estate need to align its business model with the environment to suit customer needs and enable the delivery of the required services (Palm, 2013).

The challenges of technological change cause companies to compete with relevant resources and face the same pressures, so in order to obtain and create new technological knowledge and use knowledge in pursuing innovation, it is necessary to collaborate with competitors (Quintana-García & Benavides-Velasco, 2004; Ritala, 2009). A business strategy that designs a cooperation and competition plan that functions simultaneously with inter-company parties depending on one another is called a cooptation strategy (Brandenburger & Nalebuff, 1997; Lado, Boyd, & Hanlon, 1997). Companies with this cooptation strategy will strike a balance between cooperation and competition, and this can develop in terms of capabilities (Gnyawali, Jinyu He, & Madhavan, 2006). One capability associated with technology and globalization as a resource within the organization is innovation. Innovation capability is the ability to absorb, adapt and transform certain technologies into specific management, operations, and transaction routines that lead to corporate profits through innovation (Zhou & Wu, 2010).

Property corporations, as one of the industries that use high technology, face unique challenges and opportunities with the dynamics of their business environment, so it can be said that it is conducive to implementing a cooptation strategy. The cooptation strategy is an interaction between a cooperative perspective as a reciprocal interaction between individuals at the inter-organizational level with a competitive perspective as an interaction that occurs among organizational members at the intra-organizational level. The problems that arise in the cooptation strategy are complex because they require preparation to cooperate and compete; organizations that have unique resources as a company's competitive advantage may be lost so that buyers cannot distinguish which are the advantages of the company compared to competitors (Bengtsson & Kock, 2000). Therefore, management efforts are needed to recognize the external environmental factors of dynamic technological changes and the internal environmental factors of innovation capability, both of which can be formulated in a strategy to cooperate with competitors, which is called a cooptation strategy. This strategy is formulated for property companies that are under industry associations in a region.

Based on this issue, this study aims to determine the cooptation strategy that can be built in real estate companies from the influence of technological change as an external factor and the influence of innovation ability as an internal factor.

LITERATURE REVIEW

This study will identify technological change as an external environmental factor, namely, which is dynamic, and identify innovation capability as an internal environmental factor, and which of these two factors can be formulated in a cooptation strategy, with two aspects, namely cooperative and competitive that will be explained further below.

Technology Changes

Technological change is an external environmental factor of the company in the form of the process of discovery, innovation, and diffusion of technology or processes in environmental policies, which are strongly influenced by the pace and direction of technology; in addition, it is also influenced by the constraints of the overall technological development process. (Jaffe, Newell, & Stavins, 2002). This statement is supported by another opinion which states that technological change is a process that requires an innovation system accompanied by a dynamic approach to be easily understood and become more focused (Hekkert et al., 2007).

Property companies must understand how technology develops in a property if they want to win the competition in the property sector. The use of technology in property companies can

trigger changes in the development process and improve the quality of work so that companies that cannot use technology in the property development process will be left behind. The technological change from the property as an innovation that changes the property development process consists of three types of technology that can be applied in the property development process, namely property technology, construction technology, and financial technology, and these changes occur due to the dynamics of the process due to the pace, direction and development of technology in property management (Maududy & Gamal, 2019).

Changes in property technology are indicated as changes in company performance with innovation efforts starting from the production input process at the pre-construction stage and product management at the post-construction stage. Changes in construction technology are measured by changes in the company's performance at the construction stage with operations and construction innovation efforts to implement property product planning, starting from development, and structural and financial factors of production (land, labor, and capital) from property technology. Changes in financial technology are indicated by changes in the company's performance as a management function at the post-construction stage, namely by innovation efforts to assist strategic decision-making for investors, especially in calculating returns on capital or benefiting from property products that have been realized. These three technological changes will become manifest variables in determining dynamic external environmental factors as latent variables.

Innovation Ability

Innovation is the process of generation, acceptance, and implementation of new ideas, processes, products, or services as a result of thought, behavior, or practice technology, process technology, organizational structure or administrative system, plans, or new programs related to organizational members at various levels. innovation (Dubickis & Gaile-Sarkane, 2015). The company's innovation capability or innovation capability is the ability to mobilize the knowledge possessed by employees and combine it to create new knowledge, produce product and or process innovation as a competitive advantage obtained with a high-quality workforce so as to enable organizations to compete based on quality and innovation (Çakar & Ertürk, 2010).

Competitive advantage can be created through the promotion of innovation capabilities through the integration of technology development capabilities, operations capabilities, managerial capabilities, and transactional capabilities as a result of the translation of the company's technology learning process. (Zawislak, Alves, Tello-Gamarra, & Barbieux, 2012). Furthermore, technology development capability is the ability that must be followed by the company in the current condition to absorb and ultimately change the existing technology so that it can create or change operating capacity and other capabilities with the aim of achieving a higher level of economic efficiency. Operational ability is the ability to perform the existing productive capacity through the collection of daily routines, which are knowledge, skills, and technical systems at a certain time. Management capabilities as the ability to transform the results of technological developments into coherent operations with transactional arrangements. Transaction capabilities focus more on the ability to reduce transaction costs consisting of marketing costs, outsourcing, bargaining, logistics, and shipping costs (Zawislak, Alves, Tello-Gamarra, & Barbieux, 2012). These four capabilities are the manifest variables in determining the innovation capability factor as the latent variable.

Coopetition Strategy

The ability to innovate and master new knowledge in hi-tech companies requires investment in R and D which is expensive and risky with limited resources and short product life cycles, so it is important for companies to collaborate with companies at the same sector and level.

Coopetition becomes especially important in the case of technologically advanced, innovative, and knowledge-based companies, such as companies in the high-tech sector. The pressure to innovate and create new knowledge in this sector forces companies to spend a lot of money on research and development, high R&D costs, investment risks, limited resources, and shorter life cycles (Zakrzewska-Bielawska, 2013).

Coopetition is a synthesis between two paradigms, namely competitive and cooperative. The competitive paradigm believes that companies interact on the basis of a completely different interest structure, while the cooperative paradigm, which states that companies interact on the basis of a completely convergent interest structure, requires a strong framework. Companies that compete and collaborate at the same time must better understand how companies combine internal and external innovation activities in the R&D process so that they can display a common interest structure for value creation and simultaneously compete when capturing value created (Cassiman, Di Guardo, & Valentini, 2009). These two paradigms used in this study are used to determine the factors of the cooperative perspective and the factors of the competitive perspective that arise in the coopetition strategy when companies interact in an environment that is influenced by technological changes and innovation capabilities. This cooperative perspective and competitive perspective are the manifest variables in determining the factors of the coopetition strategy as the latent variable.

The coopetition category consists of four types based on the intensity level of cooperation and competition. First, when coopetition has cooperation and competition that are both strong or balanced, it will lead to a cooperative advantage; second, coopetition has strong cooperation but is weak in competition, it will make coopetition dominant. Third, coopetition has weak but strong cooperation in the competition, then it is called dominant-competition coopetition, and the fourth is coopetition with cooperation, and competition that is equally weak is called weak coopetition. (Park, Srivastava, & Gnyawali, 2014).

RESEARCH METHOD

The research method is designed to describe and explain technological changes and innovation capabilities that affect the coopetition strategy. The research instrument was used to collect data through a multilevel scale, interviews, and observations from the analysis unit of property companies that are members of the real estate industry association.

Based on data analysis, this study is quantitative research because the existing data will be measured, and generalization of the results from the sample to the population can be carried out; this data is related to the size of the technological change, the ability of innovation and the level of cooperation and competition from the property companies that are the research sample. Based on the type, this research is also classified as non-experimental research (survey) because it studies large and small populations by selecting selected samples from the population in order to find the incidence, distribution, or relative interrelation of sociological and psychological variables (Kerlinger, 2006). The survey research was conducted using descriptive methods and explanatory structural methods. Descriptive research is related to the profile, characteristics, or relevant aspects of the research variables, whether human, organizational, industrial or otherwise (Sekaran, 2009). The descriptive research method is used to obtain actual and valuable information about the sub-sector of the property industry in Indonesia, especially in West Java, through the explanatory structural research method that will be carried out to find and analyze the relationship that occurs between the property company's coopetition strategy in this study and several concepts that form the coopetition strategy through the development of a structural model based on the least squares method or commonly called PLS-SEM on the research objects studied related in this research.

Research to develop the concept of coopetition strategy as a single dependent variable

(confirmatory) through technological change and innovation capability as independent variables, which are relatively predictors for the dependent variable (explorative). So based on the objectives, this is confirmative and exploratory research conducted by focusing on the explanation of variance in the dependent variable by testing the research model (Hair et al., 2017). The use of PLS-SEM is an option because the structural model proposed in this study displays the path between the construction and the endogenous latent model. The type of data used in this study is primary data, namely data obtained from the first source, both individually and institutionally, such as the results of filling out questionnaires distributed by researchers and interview results, while secondary data obtained from various sources issued from several relevant authorities and relevant to the research objectives. Data processing using PLS-SEM will still achieve a high level of statistical power even with a small sample size. The minimum sample size using PLS-SEM is 10 times the number of independent variables from the most complex ordinary least squares (OLS) in structural or formative measurement models (Hair et al., 2017). The number of independent variables from the most complex ordinary least squares in this research model is two, so the minimum number of samples in this study is 20 samples, but to have more statistical power, it is enlarged to 32 samples.

FINDINGS AND DISCUSSION

Findings

The problems in this study will be discussed thoroughly, namely, to find out how management efforts to recognize technological change as a dynamic external environmental factor and understand the ability of innovation as an internal environmental factor and find out how these two factors can be formulated in a cooperation strategy with competitors (coopetition strategy). The research model uses hierarchical component models (HCM) of reflective-reflective type with 1 exogenous variable (co-opetition strategy) and 2 endogenous variables (technological change and innovation capability). Data processing uses SmartPLS ver 3.3.3 software with the analysis stages following the analysis stages of Hair (Hair, 2014). The analysis of the reflective measurement model has two stages, namely, first, evaluating the measurement model for internal consistency, convergent validity, and discriminant validity on the lower order component, and second, evaluating the measurement model for the higher order component using the rule of thumb.

Analysis of the measurement model for the lower order shows the results of the first running; there is one indicator of the technology change variable, and three indicators of the cooperative strategy variable, which has an outer loading value below the cut-off value of 0.70 and the indicator reliability are smaller than the cut-off value of 0.50. This indicates that the indicators are not valid, so the indicators are removed, and the re-estimation process is carried out. After the re-estimation process has been carried out, the results are that all indicators show the level of convergent validity, internal reliability, consistency, and good discriminant validity where the values are at the specified value requirements. After the measurement model for the lower order is appropriate, the next analysis is the analysis of the measurement model for the higher order. Analysis of the measurement model for Higher Order with the results of the analysis of all values that need to be evaluated, both from convergent validity, internal consistency reliability, and discriminant validity, have been in accordance with the cut-off value. Therefore, data analysis is continued with structural model analysis.

Structural model analysis has the stages of the analysis process through the collinearity test, test the significance of the relationship path, calculate the value of R², calculate the value of f² and calculate the value of Q². All cut-off values are based on references (Hair et al., 2017). The collinearity test was carried out by looking at the value of the VIF / Variance Inflation Factor, and the existing VIF values for all dimensions were above 0.20 and below 5 so that it could be said that there was no multicollinearity between predictors. The relationship path significance test shows

that IC affects CS positively and significantly at a significance level of 0.05. as well as TC against CS and TC against IC. The total effect value of this relationship is that TC gives the greatest effect on the formation of CS (0.617) compared to IC (0.458), while from IC to CS the effect value is the smallest (0.416). The R2 value of the CS variable is 0.518, which is included in the middle category (Cohen, 1988). This shows that the CS variable can be explained by 51.8% by the predictor variable. The R2 value for the IC variable is 0.21, which is included in the low category (Cohen, 1988), which shows that the predictive power of the predictor to explain IC is 21%. The value of f2 /effect size is a value that explains how much the contribution of the exogenous variable to the R2 value of the endogenous variable is.

The formation of CS by the TC variable gives a contribution that is classified as a medium as well as the IC variable according to the value prerequisites of (Cohen, 1988). Meanwhile, the contribution of TC in forming IC is included in the medium category. The value of Q2/Predictive Relevance shows the strength of the predictive relevance of the research model and the cut-off value for Q2, which has a value above 0. It can be seen in the table that this research model shows the capacity of its predictive relevance power in predicting endogenous variables. The cooperation strategy has resulted in the cooperation value perspective (0.943), which is slightly higher than the competition value perspective (0.909) in the possible category because the company is under the same regional industrial association. The result of this data analysis is presented in Figure 1, Structural Model of Research.

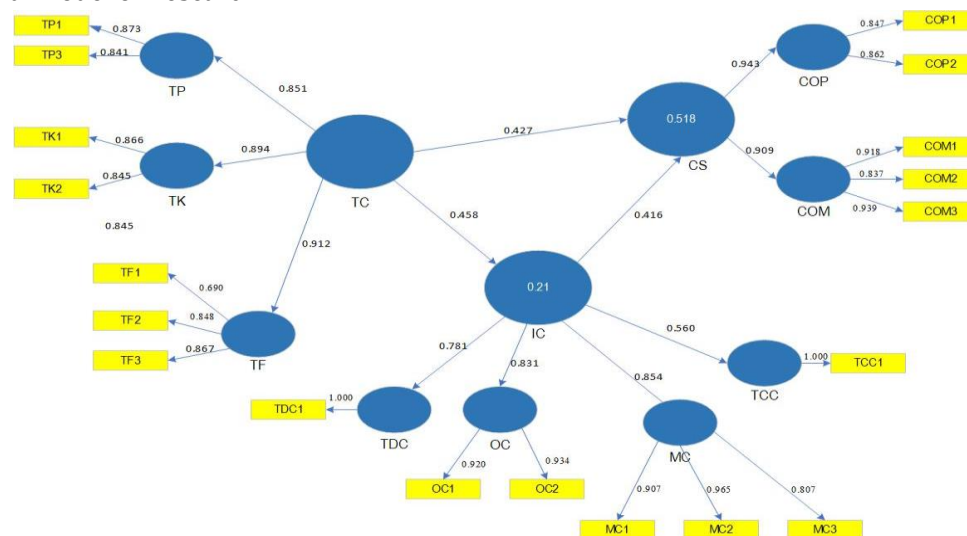


Figure 1. Structural Model of Research

Discussion

The technological change from property as an innovation that changes the property development process consists of three types of technology that can be applied in the property development process, namely property technology, construction technology and financial technology that occur due to the dynamics of the process due to the pace, direction and development of technology in property management (Maududy & Gamal, 2019). Financial technology has the largest role (0.912), followed by construction technology (0.894) and property technology (0.851) in shaping technological change related to the company's cooperation strategy and innovation capability. These results further support the statement that cooperation strategies with a cooperative and competitive perspective are strongly influenced by technological changes. The phenomenon of simultaneous competition and collaboration is a common practice in the high-

tech industry due to its networked nature (Ritala & Sainio, 2014), including property companies with financial technology, construction technology and property technology, which are undergoing very dynamic changes.

The results of this study are exactly as said (Maududy & Gamal, 2019), that financial technology is a technology that plays a role in the property development process that encourages systems that model, assess, and process financial products, for example crowdfunding as a new method or model as a product financing system. Financial technology also helps accelerate transaction processing, consumer experience and product providers using technology and can drive the development of business models and offer new methods of finance in the property industry. Fintech Real Estate is one of the methods of Financial Technology in the property sector, which is the intersection between financial technology and property technology. Property Technology is a technology that innovates in property development in terms of processes, services, management, and business models. The new technology in property known as proptech is in practice bringing changes to all aspects of commercial real estate including construction, building management, investment, and how data collection technologies are. The use of mobile technology has enabled automated data collection and analysis that can provide real estate consumers with accurate information by analogy that technologies such as gamechangers differentiate players in the real estate industry. Likely to disrupt the traditional business model in the real estate industry (Lizam, 2019), such as rent collection, maintenance costs to property portfolio management, sharing economy technology, blockchain integration for verification of online ownership deed issuance that can be collaborated on a modern property business model. Construction Technology itself is part of the technology that helps the implementation process of property development planning and also helps the development of data, physical and service activities.

Developers who master technology in the property sector can trigger changes in the development process and improve the quality of work while developers who cannot afford will be left behind (Maududy & Gamal, 2019). This condition of technological change will be achieved by collaborating with competitors in addition to benefiting from innovation for the company and its partners. Technological collaboration will result in innovation from incremental innovation to radical innovation through corporate partnerships with similar technologies to complementary technologies (Quintana-García & Benavides-Velasco, 2011).

The innovation ability of property companies in this study is already good. This overall innovation capability includes the ability to absorb, adapt and change technology in the management, operations, and transaction routines that lead to innovation (Zawislak, Alves, Tello-Gamarra, & Barbieux, 2012). The ability of managerial routines is most prominent among other capabilities (0.854), namely as management's ability to create value for Integrated Information System technology from maintenance activities to finance, management is able to anticipate ICT development trends, and management is able to master information technology so as to reduce outsourcing costs. This is according to (Zawislak, Alves, Tello-Gamarra, & Barbieux, 2012) strongly supports the achievement of company goals because the managerial capabilities achieved by the company will be responsible for integrating and coordinating the work carried out by the three other capabilities. Operational capability (0.831) is the ability to operate technology efficiently to produce products that aim to provide innovative solutions to the market, not just technological change. Property companies are able to carry out company research and development activities as well as innovate operational data updates on unit sales that are of value to the market. This is in line with the opinion (Zawislak, Alves, Tello-Gamarra, & Barbieux, 2012), that operating capability must demonstrate productive capacity in daily routines through knowledge, skills and technical systems for a given time. Technology development capability (0.781) is the technological capability used to manage and produce technological changes and implementation in property companies,

namely the ability to generate unit sales with technical efficiency through Virtual Reality. VR is the use of online technology to showcase real estate products and features during marketing activities using 360-degree camera technology. Digitize building operations, cloud computing, mobile communications, and the Internet of Things as advanced analytics to create powerful intelligent data sets for connecting assets with stakeholders (Thompson, 2015). This digitalization is also related to transactional capabilities (0.560) in the context of operational cost efficiency through digital adoption, and it is necessary to increase property companies related to smart building products.

This innovation capability is also influenced by technological changes with a total effect of 0.458. Perspectives on innovation and its relationship to technology transfer based on research results are still overlapping. Exploration of tools, techniques, and methods that can be applied from one field to another is still unclear, so further research is needed, especially regarding the level of technological novelty and organizational performance using a systematic approach (Dubickis & Gaile-Sarkane, 2015). The ability of Business Innovation as a contingency factor that can further explore the relationship between technology and its changes with total quality management as a functional form of mediation in further research (Perdomo-Ortiz, González-Benito, & Galende, 2009).

The total effect of innovation capability on the cooperation strategy is not as strong as the influence of technological change, this is from the previous explanation it is suspected that this can occur. The strong influence of technological change is possible because the co-option strategy in a high-tech context has several challenges related to technology such as product life cycles, research and development investment needs, technology convergence, and technology standards for companies with advanced, innovative and knowledge-based technologies. (Dahl, Kock, & Lundgren-Henriksson, 2016) including property companies. Technological challenges in companies that compete and have the ability to innovate resources will face the same pressures, so it is important to collaborate with competitors so that companies can acquire and create new technological knowledge and use this knowledge in pursuing innovations (Quintana-García & Benavides-Velasco, 2011; Ritala, 2009).

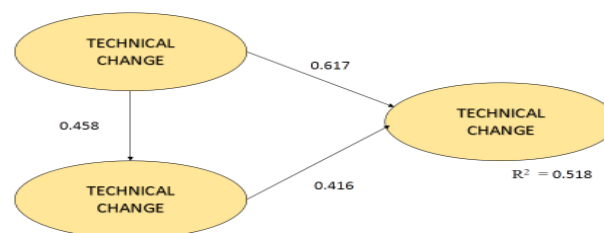


Figure 2. Research Result Model with Total Effect

Companies with competitors can co-optimize through cooperation to face technological challenges and opportunities by bringing together relevant and complementary resources, to then be combined, it will provide strong motivation for companies to collaborate with each other even though there is also competition (Gnyawali & Park, 2011). The strategy of cooperation of hi-tech companies competes for the position of being a technology leader and innovative leader in the industry (Zakrzewska-Bielawska, 2012). Cooperation is a synthesis between the competitive paradigm which states that companies interact based on very different interest structures, while

the cooperative paradigm states that companies interact based on a completely convergent interest structure, so they are mutually exclusive (Cassiman, Di Guardo, & Valentini, 2009).

The coopetition strategy in property companies is dominated by cooperation, meaning that companies work together even though they still have different interests, especially in strategic alliances to attract investors, market mapping, and strategic cooperation in managing land reserves. However, competition continues to occur, especially in integrated property product technology and efforts to reach foreign markets. So this coopetition has strong cooperation but weak in competition, it is called dominant-cooperative coopetition (Park, Srivastava, & Gnyawali, 2014). The model from the results of this study is presented in Figure 2. Property companies as high-tech companies have simultaneous cooperation and competition, the company operates in a very competitive network condition and this is where the company's attitude towards competitors and its ability to work with competitors to improve innovative processes is here (Zakrzewska-Bielawska, 2013).

CONCLUSIONS

This study concludes that the coopetition strategy in the property business is influenced by technological changes as an external factor and the ability to innovate as an internal factor. These two factors can contribute to a coopetition strategy with the result that technological change in the property industry is very significant and more influential than the ability to innovate. Technological changes are also significant, with an effect on the ability to innovate. The coopetition strategy from the cooperative aspect is most influenced by technological changes and innovation capabilities compared to the competitive aspect, so coopetition is called dominant-cooperative coopetition.

Recommendations that can be given are the company's efforts to cooperate with competitors, especially to face the challenges of globalization, innovation, and sustainability, and for that, further research is needed. Research on coopetition strategies needs to continue to be explored so that implementation can be carried out to improve corporate performance and be expanded to many business sectors, and business participation is also needed to support more integrated results. This also makes the limitations of research conducted in the case of companies associated with certain regions, while the benefits of this research are very much needed in situations of increasingly high business challenges.

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