

The Moderating Role of Human Capital on the Operational Resilience and Strategic Orientation to Corporate Sustainable Longevity through Innovation Performance: Evidence from Indonesian *Jamu* Companies

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ABSTRACT

Several terms that have developed in the field of psychology today are widely used as analogies to describe events in the business field. This emphasizes the importance of human capital as part of corporate capital. The company's ability to survive through operational resilience is shown in this study. This study analyzes whether strategic orientation and operational resilience affect the survival of the company through innovation performance and whether human capital moderates the relationship between strategic orientation, operational resilience, and innovation performance on corporate sustainable longevity (CSL). The research was conducted using a quantitative research approach through structural equation modeling data analysis techniques. The sample of the study consists of 131 *jamu* companies operating in Java, Indonesia. It is proven that in addition to being a precursor to the achievement of innovation performance and CSL, human capital can also function as a moderator for innovation performance to achieve CSL. The importance of a strategic orientation to improve innovation performance and achieve CSL is not proven in this study. Innovation performance is not sufficiently supported by a strategic orientation. Likewise, the Company's Sustainability is not supported by direct Strategic Orientation or through Innovation Performance.

Keywords

Corporate sustainable longevity; Innovation Performance; Human capital; Operational resilience; Strategic orientation

Introduction

Several terms that have developed in the field of psychology today are widely used as analogies to describe events in the business field. Longevity of firms is an interesting issue from a theoretical point of view. The company's ability to prepare, survive and recover to its original position is increasingly important. In term of theoretical view, corporate sustainable longevity (CL) cannot be separated from corporate longevity (CL) as the preceding concept. CSL refers to what enables a company to achieve longevity. CL refers to the longevity of the company compared to the average age of the company (Ahmad et al., 2019).

The herbal medicine and traditional medicine industries, Indonesian people called it as *jamu*, as cultural heritage always face challenges of longevity of business. Responding to changes in the business environment, it is important to pay special attention to the factors that ensure the longevity of the *jamu* company which is represented by the existence of companies that consistently produce and benefit from their business operations. There is information related

to the industry's stagnation which has caused *jamu* companies to stop their business. *Jamu* Entrepreneurs Association (GP *Jamu*) said that around 400 herbal medicine factories were closed (Tribunnews, 2019). This is not only local issue, but also globally CL has decreased significantly in the last few decades (Anthony et al., 2018; Kuenen et al., 2011).

Onwuzuligbo & Nnabuiife (2015) stated that there is a very significant positive relationship between sustainability factors and organizational longevity of 225 companies listed on the Nigerian capital market. The recommendation of the study is that companies must identify certain sustainability factors related to the longevity of the company. The company's survival cannot be separated from the influence of internal and external change factors.

Simons & Chabris (1999), the Nobel Prize winner for psychology, introduced the term "counting passes while looking at the gorilla," which means encouraging perfect execution and adapting to changing conditions. Gorilla in this case spreads annoyance or threat full of danger. Birkie (2016)

mentions the need for proactive and reactive abilities in managing disruptions as operational resilience. Reducing the likelihood of distraction and increasing endurance can be achieved by creating flexibility or increasing flexibility.

The purpose of this study was to analyze whether strategic orientation and operational resilience affect the survival of the company through innovation performance and whether human capital strengthens (moderating) the relationship between strategic orientation, operational resilience, and innovation performance on the CSL as an important contribution of this research.

Literature Review

Davis (2014) states that longevity is the biggest common challenge for companies. Geus (1997) emphasizes the need to obtain corporate longevity

(CL) and maintain a balance of complex organizational characters in a turbulent environment. Apart from that CSL or CL is important, there is different viewpoint of Joseph Schumpeter, a free-market economist who tends to ignore the value of a CL due to creative destruction. When innovation becomes routine, growth will slow down, and entrepreneurs will not feel the pressure to challenge the establishment. Furthermore, the capitalists will become bureaucrats or the ruling class and companies that try to maintain the establishment will be destroyed (Sledzik, 2013). Creative destruction with innovation because of business competition makes long life difficult. It has become commonplace that there are companies that are successful and that there are companies that fail to maintain their longevity due to bankruptcy.

The following figure 1 is theoretical relationship that build this research phenomenon logic.

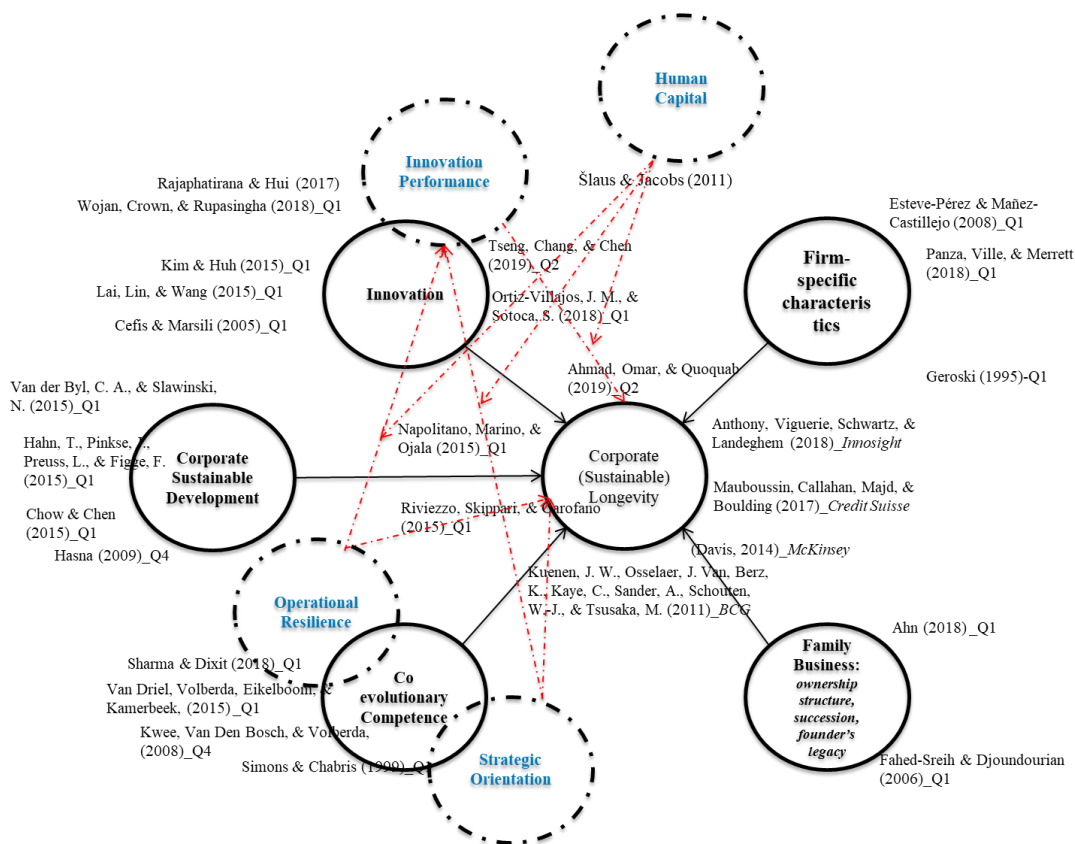


Figure 1. Theoretical Phenomenon of Corporate (Sustainable) Longevity

The Innosight study provided key findings that the average CL in the S&P 500 in 1964 fell from 33 years to 24 years in 2016. Furthermore, CL is expected to shrink to just 12 years by 2027 (Anthony et al., 2018). Within the scope of family companies, only a few companies can survive in the long term (Hillebrand, 2018; Ahn, 2018; Hnátek, 2015; Cressy, 2006). Hnátek (2015) states that around 70% of family-owned businesses do not survive in the second generation and 90% are no longer controlled by the third generation of the founding family. Another finding on multinational companies by the Boston Consulting Group (BCG) states that the company's life expectancy ranges from 40 to 50 years (Kuenen et al., 2011).

Freeman et al.(1983) called the organizational death model accommodating four facts: (i) organizational death caused by interactions between environmental shocks and internal processes; (ii) the death of the organization can occur at any time; (iii) the dissolution of an organization is only one way in which the organization does not act as an independent actor; and (iv) organizations of the same age in the same neighborhood have different mortality rates. Several researchers conducted studies on the macro-business view of the relationship between firm size, longevity, and profitability (Panza et al., 2018; Esteve-Pérez & Mañez-Castillejo, 2008; Cressy, 2006; Audretsch, 2006; Audretsch & Mahmood, 2006; Audretsch et al., 2000; Geroski, 1995; Evans, 1987), up to the micro scope related to the legacy of family company founders, succession planning, leadership, ownership structure to longevity (Sharma & Dixit, 2018; Ahn, 2018; De Falco, S.E & Vollero, 2015; Antheaume et al.,2013; Fahed-Sreih & Djoundourian, 2006), best competitive position, structural inertia, learning and adaptation (De Brito & Brito, 2014; Burgelman & Grove, 2007) and the effect of innovation on longevity regardless of company-specific characteristics such as age and size (Tseng et al., 2019;Ortiz-Villajos & Sotoca, 2018; Wojan et al., 2018; Rajapathirana & Hui, 2017; Kim & Huh, 2015; Lai et al., 2015;Cefis & Marsili, 2005).

Previous research, the influence of predecessor variables stopped on company performance (Rajapathirana & Hui, 2017; Varis & Littunen,

2010; Subramanian & Nilakanta, 1996) or culminated in innovation capabilities (Russo-Spena & Mele, 2012; Börjesson & Elmquist, 2011; Quintana-García & Benavides-Velasco, 2004). The innovation performance in this study becomes a mediating variable. This means that although the strategic orientation and operational resilience has a direct influence on the longevity, through innovation performance it is predicted to have a greater impact or as a solution to the company's sustainability. Operational resilience is involved in this research model because operational disruption is no longer a simple event but needs to be defined as part of the decision-making process, finalized to determine strategies for competitive advantage (Annarelli & Nonino, 2016; Birkie, 2016).

This study involves human capital as a determining factor for the strength or weakness of moderating strategic orientation and operational resilience to improve innovation performance. Generally, human capital variables are positioned as predecessor variables (Habib et al., 2019; Saha et al., 2019; Meijerink & Bondarouk, 2018; Dawodu & Akintunde, 2018;Aleknavičiūtė et al., 2016; Buenechea-Elberdin et al., 2017; Bhaskarbhatla et al., 2017; Indermun, 2015; Yang & Lin, 2014).

Referring to the suggestion in previous research that the next research is expected to explore the relationship of various variables with the sustainability of life in various types of companies to conceptualize a holistic view of CSL (Ahmad et al., 2019) with different economic, industrial, and geographical spheres, associated with the level of innovation (Rajapathirana & Hui, 2017; Kim & Huh, 2015) through strengthening strategic factors, understanding external impacts, dynamic capabilities, and strengthening human resources (Tseng et al., 2019; Panza et al., 2018; Sharma & Dixit, 2018; Ahn, 2018).

Methodology

The research used a quantitative research approach through verification of causal relationships which can be a solution for the management of the company under study. Data obtained from respondents through a survey

method through filling out a questionnaire using a sample that aims to describe the characteristics of the population under study. The unit of analysis for this research is company involving the observation unit of entrepreneurs or management of herbal medicine and traditional medicine companies in Java, Indonesia. Furthermore, the data and facts from the collected questionnaires will be tested using structural equation modeling (SEM) data analysis techniques. The research was conducted using the one shoot or cross-sectional method, which is a research method that is carried out by taking a relatively short time and a certain place.

The sample of the study consists of 131 jamu companies operating in Java, Indonesia. The sampling techniques used was simple random sampling, with a margin error of 10% with a population of 735 companies. The questionnaire was designed using the 5- point Likert Scale, where 1 means strongly unfit to 5 being strongly fit. This study develops hypotheses tested as follows:

H1: *Strategic orientation affects corporate sustainable longevity.*

Panza et al.(2018) states that companies that last longer than the average age of the company indicate that the organization can drive a cycle of change, be it economic, political, or social. Ladeira et al.(2018) divides the strategic orientation for failure recovery into three constructs: recovery strategy, recovery behavior, and recovery performance. To survive, companies must build core competencies through the application of quality practices, competitive pricing policies and cost effectiveness, marketing, appropriate basic strategies, product innovation, and prediction of buyer behavior for high customer satisfaction (Gupta & Barua, 2016; Kamakura & Moon, 2009; Chobanyan & Leigh, 2006).

H2: *Strategic orientation affects innovation performance.*

Sahi et al. (2020) mention the influence of strategic orientation, in this case entrepreneurial orientation and market orientation on exploration and exploitation activities (ambidexterity) to improve business performance. Stieglitz et al.

(2016) explain the importance of exploration and strategic flexibility varies depending on environmental dynamics. Dynamic environments are complex adaptive systems. Razavi & Attarnezhad (2013) tested the concept of organizational innovation to identify various strategies and manage innovation, adapt, and manage the organization as the basis of innovation management. Companies need to continue to adapt to changing environmental conditions because failure to respond in a timely manner will have a significant negative impact on business operations (Van Driel et al., 2015).

H3: *Operational resilience affects corporate sustainable longevity.*

The integration of resilience and sustainability requires a long, thorough process with full discipline (Achour et al., 2015). Birkie et al. (2017) show that resilience helps reduce the likelihood of performance degradation due to disruption. Gunasekaran & Ngai (2012) describe the importance of operational resilience for CL through increasing efficiency, reducing environmental impacts, and avoiding acute disruptions. Cirera et al. (2015) investigated in more detail the derivative impact of the technology capability model on sustainable competitive advantage.

H4: *Operational resilience affects innovation performance.*

Achour et al.(2015) stated that different stakeholders are interested in intervening in innovative ways to build an integrated resilience and sustainability. Teixeira & Werther (2013) state that a strong organization anticipates and follows up with innovations against disruptive industrial changes. Market demands and the business environment that cause operational disruption can also be a positive impetus for more environmentally friendly production related to the use of raw materials (Colwill et al., 2016). Alves et al.(2017) stated that high-tech companies tend to focus more on innovating through technology. There are other companies that are more attached to market acceptance in innovating. Research by Zawislak et al.(2018) found that companies with high technology and low technology could repair higher capacities.

H5: *Human capital strengthens the strategic orientation of innovation performance.*

Meijerink & Bondarouk (2018) prove that a higher level of human resources results in a higher level of competitive advantage. Buenechea-Elberdin et al. (2017) stated that intellectual capital is the main driver of innovation performance and competitive advantage. Khadan (2018) found that companies have difficulty finding new employees who are capable of being involved in all types of innovation. The most frequently used innovation performance indicators are the number of ideas and initiatives, as well as the number of awards given to employees based on the ideas raised (Saunila, 2017). Work patterns and demands on employees in job qualifications changed with the birth of the era of communication technology with skill requirements such as communication, technical skills, learning abilities and creativity (Ahmad et al., 2019). Nilsson & Ritzén (2014) support reflective sessions on outcomes, spurring discussion about what creates value and guiding new behaviors such as cross-functional collaboration.

H6: *Human capital strengthens operational resilience to innovation performance.*

Human capital, as reflected in the level of experience, skills, education, knowledge, and innovation are two important engines of economic growth (Dar & Mishra, 2019). Dynamic resilience is based on adaptive ideas characterized by complex non-linear dynamics and adaptive capacities that allow for spontaneous rearrangement of internal structures (Rose, 2016). Changes that disrupt economic, technological, and social systems will affect the employment landscape with new challenges and new opportunities (Gaspar et al., 2019). The ability to recover from a disturbance event is associated with developing responsiveness through flexibility and redundancy (Carvalho et al., 2014). Unexpected market demands can strengthen flexibility, support timely decision making, early anticipation and close collaboration with customers and suppliers to ensure coordinated action (Fiksel et al., 2015).

H7: *Innovation performance affects corporate sustainable longevity.*

Reduced inventory and production have the potential to reduce operational resilience to an acute disruption (Gunasekaran & Ngai, 2012; Gunasekaran & Ngai, 2012). Business growth results from innovation in an organization and results in organizational sustainability (Carayannis et al., 2015). Ortiz-Villajos & Sotoca (2018) stated that the company's significant innovation positively affects the probability of business sustainability. The longevity of a growing business is an indication that creativity, innovation, and flexibility are essential for survival (Gupta et al., 2013). Santos & Brito (2012) stated that companies that successfully reconstruct their capabilities and can innovate are able to compete and survive. Wojan et al. (2018) shows that long-lasting processing companies are very interested in non-innovation strategies towards innovation orientation. Research by Wojan et al. (2018) provide evidence that substantive innovation is important for building sustainability.

H8: *Human capital strengthens innovation performance for corporate sustainable longevity.*

Wojan et al. (2018) show that long-standing processing companies are particularly interested in a broader innovation orientation. Ortiz-Villajos & Sotoca (2018) stated that the company's significant innovation positively affects the probability of business survival. Among the control variables, company size, internationalization, and the age of the leader when leading the business became the most influential on business continuity. Geus (1997) shows that the average life span of a company is much shorter than its life expectancy because business policies and practices are based too much on economic thinking and language. It is important to pay attention to the organization as a community of people who are in business. Innovation is the main strategic dimension for companies to drive growth, profitability, and company survival (Rajapathirana & Hui, 2017). Meijerink & Bondarouk (2018) prove that a higher qualification level of human resources results in a higher level of competitive advantage. Human capital provides value, added to human mental awareness, creativity, and social innovation so that it becomes the main

determinant of resource productivity and sustainability (Šlaus & Jacobs, 2011).

Result

The data analysis model used in this research is Structural Equation Modeling (SEM) with Covariance Based (CB). SEM consists of two main parts, namely measurement model and structural model.

Measurement Model

The estimated loading value as the validity coefficient on all construct variables of each variable has a probability significance value greater than the alpha significance of 0.05. It can be interpreted that all construct variables in each latent variable are valid. The results of data reliability testing on each statement item obtained the alpha significance probability value greater than 0.05 and the critical ratio significance greater than 1.96. It can be interpreted that all construct variables are reliable.

The value of the variance extracted reliability of the Innovation Performance (IP) variable is 0.71; the CSL variable of 0.73; the Strategy Orientation (SO) variable is 0.58; Operational Resilience (OR) variable of 0.67; and Human Capital (HC) variable of 0.86. Thus, it can be interpreted that the extracted variance values are above the value of 0.50. Thus, it can be said that all construct variables can reflect their respective latent variables well and reliably.

The estimated covariance value between the latent variable of IP and CSL is 0.89. The estimated covariance value between the latent variable of SO and CSL is 0.62. Meanwhile, the estimated covariance value between OR and CSL is 0.85. It can be interpreted that the estimated covariance value in the direction of causality of the latent variable is positive or unidirectional. While the level of the correlation value of the three is strong as shown in table 1 below.

Table 1. Covariance Matrix of Latent Variables

	IP	CSL	SO	OR
IP	1.00			
CSL	0.89	1.00		

SO	0.56	0.62	1.00	
OR	0.79	0.85	0.81	1.00

Source: Output LISREL 8.70

The following are the standardized solution values, as presented on the figure 2 below.

Source: Output Data LISREL 8.70

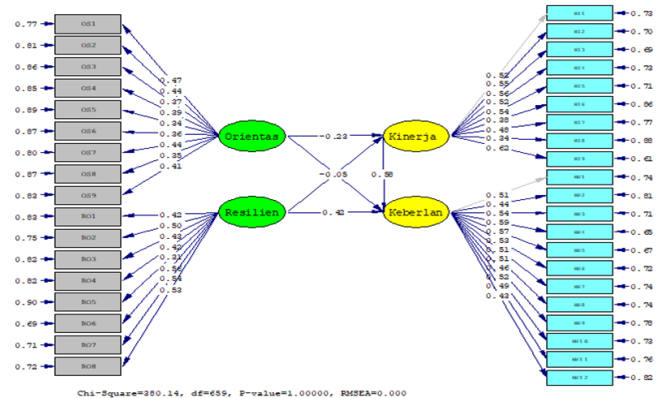
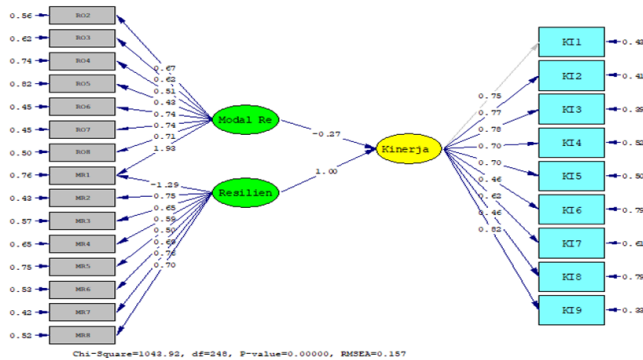


Figure 2. Standardized Solution

Based on Figure 2, it can be explained that the SO5 construct variable has the greatest influence on Strategy Orientation latent variable, which is 0.89. It can be interpreted that the indicator "management regularly discusses the strengths and strategies of competitors" reflects mostly the Strategy Orientation variable. The OR5 construct variable has the most influence on the Operational Resilience latent variable, which is 0.90. It can be interpreted that the indicator "we produce the output of products and or services with the minimum resources" can best reflect the Operational Resilience variable.

The construct variable IP8 has the greatest influence on the latent variable of Innovation Performance, which is equal to 0.88. It can be interpreted that the indicator "the level of requests for visit permits or comparative benchmarking to our company", best reflects the Innovation Performance variable. CSL12 construct variable has the greatest influence on the latent variable of CSL, which is equal to 0.82. It can be interpreted that the indicator "the level of the company's contribution to the environment/economy/social of the surrounding area", can best reflect the Corporate Sustainable Longevity variable.

Based on Figure 3, it can be explained that the HC1 construct variable has the greatest influence on the latent variable of Human Capital, which is equal to 0.76. It can be interpreted that the indicator “the average working period of our employees in the herbal and traditional medicine industry is more than five years”, at best reflects the Human Capital variable.



Source: Output Data LISREL 8.70

Figure 3: Standardized Solution with Human Capital as moderator

Structural Model

Based on the results of the Goodness of Fit Statistics test, it can be explained that the chi square value is 316.30 with a degree of freedom level of 659 and a probability significance value of 1.00 indicates that the model is fit and is in accordance with the data. In addition, most of the measurement indexes such as the RMSEA, NNFI (TLI), PNFI, CFI, RFI, IFI, RMR and PGFI indices show a good fit or a very good fit or reach the recommended cut-of value. So that the conclusion that can be drawn in this test is that this research model is suitable for use at the next analysis stage.

Following are the results of testing structural equation modeling analysis with statistical software for Windows, Lisrel as shown in Figure 4 below.

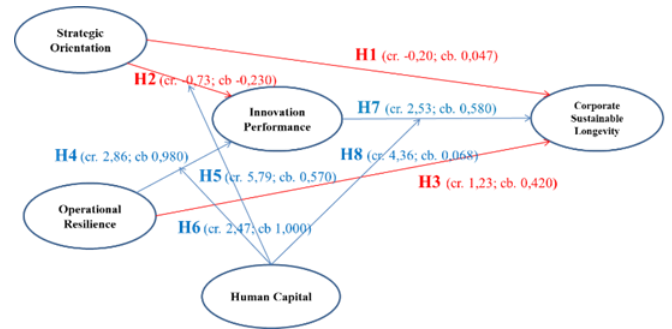


Figure 4: Structural Model

Based on the results of the SEM structural model testing above, the mathematical equation (1) can be presented as follows:

$$CSL = \beta_0 + \beta_1 SO + \beta_2 OR + \beta_3 IP + \beta_4 HC + \beta_5 (IP * HC) + \epsilon_1$$

$$= 0,85 - 0,047 SO + 0,420 OR + 0,580 IP + 0,068 IP * HC + 0,150 \epsilon_1$$

It can be explained that the constant value is 0.85, meaning that if the Strategic Orientation (SO), Operational Resilience (OR), and Innovation Performance (IP) variables are independent variables and the Human Capital (HC) variable as a moderating variable does not exist, the value of CSL variable is 0.85. The unstandardized beta coefficient value on SO and OR variables cannot be interpreted because the direction of the effect of causality is not significant. IP has a significant influence on the CSL, either directly or indirectly, through HC.

The unstandardized beta coefficient value for IP variable is 0.580, which means that if IP variable has increased by one unit, CSL variable will also increase by 0.580 times and this applies the opposite. Meanwhile, the unstandardized beta coefficient value of HC variable as a moderating variable is 0.068 which means that if HC variable increases by one unit, the direction of the influence of IP variable on CSL will also increase by 0.068 times and this applies the opposite.

The mathematical equation (2) can be presented as follows:

$$KI = \beta_0 + \beta_1 SO + \beta_2 OR + \beta_3 (SO * HC) + \beta_4 (OR * HC) + \epsilon_2$$

$$= 0,640 - 0,230 SO + 0,980 OR + 0,570 SO * HC + 1,000 OR * HC + 0,360 \epsilon_2$$

It can be explained that a constant value of 0.640 can be interpreted that if SO variable, OR as an independent variable and HC as a moderating variable does not exist, then the value of IP variable is 0.640. The unstandardized beta coefficient value of SO variable cannot be interpreted because the direction of the direct causality effect is not significant, but the direction of the effect is indirectly significant. If HC variable as a moderating variable increases by one unit, then the direction value of the influence of SO variable on IP will also increase by 0.570 times and this applies the opposite.

OR variable influences IP variable through HC, either directly or indirectly. The unstandardized beta coefficient value for OR variable is 0.980, it can be interpreted that if OR variable increases by one unit, IP variable will also increase by 0.980 times and this applies the opposite. Meanwhile, the unstandardized beta coefficient value of HC variable of 1,000 can be interpreted that if HC variable as a moderating variable increases by one unit, then the direction of the influence of OR on IP will also increase by 1,000 times and this applies the opposite.

Referring to mathematical equations, proving the research hypothesis is carried out as follows:

Hypothesis 1: The Effect of strategic orientation on corporate sustainable longevity.

Based on the results of SEM analysis testing with Lisrel 8.70, the probability significance value is $(0.20) \leq$ the critical ratio value of 1.96. It can be interpreted that Strategic Orientation variable cannot explain its effect on CSL variable. The unstandardized beta coefficient value of 0.047 cannot be interpreted because the direction of the effect of causality is not significant.

Hypothesis 2: The Effect of strategic orientation on innovation performance.

Based on the results of SEM analysis testing with Lisrel 8.70, the probability significance value is $(0.73) \leq$ the critical ratio value of 1.96. It can be interpreted that Strategic Orientation variable cannot explain its effect on Innovation Performance variable. The unstandardized beta coefficient value of (0.230) cannot be interpreted

because the direction of the effect of causality is not significant.

Hypothesis 3: There is an effect of operational resilience on corporate sustainable longevity.

Based on the results of SEM analysis testing with Lisrel 8.70, the probability significance value is $1.22 \leq$ the critical ratio value of 1.96. It can be interpreted that Operational Resilience variable cannot explain its effect on CSL variable. The unstandardized beta coefficient value of 0.420 cannot be interpreted because the direction of the effect of causality is not significant.

Hypothesis 4: There is an effect of operational resilience on innovation performance.

Based on the results of SEM analysis testing with Lisrel 8.70, the probability significance value is $2.86 \geq$ the critical ratio value of 1.96. It can be interpreted that Operational Resilience variable can explain its effect on Innovation Performance variable. The unstandardized beta coefficient value of 0.980 can be interpreted that if Operational Resilience variable has increased by one unit, Innovation Performance variable tends to increase by 0.980 times, and this applies the opposite.

Hypothesis 5: There is an effect of human capital in moderating strategic orientation on innovation performance.

Based on the results of SEM analysis testing with Lisrel 8.70, the probability significance value is $5.79 \geq$ the critical ratio value of 1.96. It can be interpreted that Human Capital variable can strengthen the direction of the influence of Strategic Orientation variable on Innovation Performance. The unstandardized beta coefficient value of 0.570 can be interpreted that if Human Capital variable has increased by one unit, then the direction of the influence of Strategic Orientation variable on Innovation Performance tends to increase by 0.570 times and this applies the opposite.

Hypothesis 6: There is an effect of human capital in moderating operational resilience on innovation performance.

Based on the results of SEM analysis testing with Lisrel 8.70, the probability significance value is $3.47 \geq$ the critical ratio value of 1.96. It can be

interpreted that Human Capital variable can strengthen the direction of the influence of Operational Resilience variable on Innovation Performance. The unstandardized beta coefficient value of 1,000 can be interpreted that if Human Capital variable increases by one unit, then the direction of the influence of the Operational Resilience variable on Innovation Performance tends to increase by 1,000 times and this applies the opposite.

Hypothesis 7: There is an effect of innovation performance on corporate sustainable longevity.

Based on the results of SEM analysis testing with Lisrel 8.70, the probability significance value is $2.53 \geq$ the critical ratio value of 1.96. It can be interpreted that the Innovation Performance variable can explain its effect on CSL variable. The unstandardized beta coefficient value of 0.580 can be interpreted that if Innovation Performance variable has increased by one unit, then CSL variable has an upward tendency of 0.580 times, and this applies the opposite.

Hypothesis 8: There is an effect of human capital in moderating innovation performance on corporate sustainable longevity.

Based on the results of SEM analysis testing with Lisrel 8.70, the probability significance value is $4.36 \geq$ the critical ratio value of 1.96. It can be interpreted that Human Capital variable can strengthen the direction of the influence of the Innovation Performance variable on CSL. The unstandardized beta coefficient value of 0.068 can be interpreted that if Human Capital variable has increased by one unit, then the direction of the influence of Innovation Performance variable on CSL has an upward trend of 0.068 times and this applies the opposite.

Discussion

The theoretical implications based on the model developed and the results of data analysis can strengthen theoretical concepts along with empirical support or get a different perspective based on the findings of this study on previous research. This research tries to fill various gaps found from previous research, as follows:

- a. To contribute to research on Corporate Sustainable Longevity (CSL), apart from the notion of Corporate Longevity (CL).

The study of CSL is still relatively new with lead author Ahmad et al. (2019). This study of CSL is inseparable from the understanding of CL which has been previously discussed by several previous journal studies from the concept review by Napolitano et al.(2015), Riviezzo et al. (2015), and Davis (2014), alongside empirical research by Panza et al.(2018), Ahn (2018), Sharma & Dixit (2018), Kim & Huh (2015), Bakr Ibrahim et al.(2009), and Fahed-Sreih & Djoundourian (2006).

- b. Providing an alternative placement of Human Capital as a moderating variable. Human Capital in previous research became a predecessor variable Generally, the Human Capital variable is positioned as a predecessor variable [39,40,41,42,43,44,45,46,47] to achieve endogenous or dependent variables. In this case, the human capital variable becomes a moderating variable from Strategic Orientation and Operational Resilience towards CSL through Innovation Performance. Besides Human Capital, in this case, it also moderates the Innovation Performance to achieve CSL. There is a note from the results of this study that Human Capital can moderate the relationship between Strategic Orientation towards Innovation Performance, but it is not enough to make the two variables significantly connected.
- c. Operational Resilience Variable as novelty in this study precedes the CSL through Innovation Performance. The Operational Resilience variable does not have a direct effect on CSL. Previous research by Achour et al. (2015) that the integration of resilience and sustainability requires a long, comprehensive process with full discipline requiring mediation by the Innovation Performance as the findings of this study. Gunasekaran & Ngai (2012) call it in the form of increasing efficiency, reducing environmental impact, and avoiding acute disturbances. Cirera et al. (2015), Alves et al. (2017b), and Zawislak et al. (2018) require technological capabilities. Finally, Birkie et al.(2017) show that Operational Resilience helps

reduce the likelihood of performance degradation due to disruption.

- d. Affirming the Innovation Performance variable as a determining variable for company performance and CSL amid the inconsistencies of previous research on the impact of innovation on company performance, whether it has a positive impact [79,80], is not related or has a negative impact [33,81], are also synonymous with large investments by companies with long-lasting returns (Zizlavsky, 2016)32]. Innovation is widely considered to be the ultimate success factor in a highly competitive and global economy. In this study, Innovation Performance emphasizes the role of antecedents or mediation in CSL which was previously in the sense of Corporate Longevity (Ortiz-Villajos & Sotoca, 2018)27,71] became CSL in this study.
- e. The Strategic Orientation variable and its relationship with CSL and Innovation Performance cannot be explained significantly in this study. This is different from previous research by Ladeira et al.(2018), Panza et al.(2018), Gupta & Barua (2016), and Sahi et al.(2020). Although Human Capital can moderate the relationship between Strategic Orientation and Innovation Performance, it is not enough to strengthen the relationship between the two to be significant.

The findings of this study reduce the inconsistency of the influence of Innovation Performance and CSL. This study shows that the Innovation Performance has a significant and positive direct influence on CSL.

Many studies state the importance of Human Capital as a factor that precedes Innovation Performance and CSL, meaning that Human Capital is a prerequisite for improving Innovation Performance and CSL. In this study, it is proven that in addition to being a precursor to the achievement of Innovation Performance and CSL, Human Capital can also function as an amplifier (moderation) for Innovation Performance to achieve CSL.

The existence of the Operational Resilience variable to improve CSL is another novelty of this study with the finding that Operational Resilience must go through Innovation Performance and be moderated by Human Capital before achieving CSL. These findings provide a novelty perspective, where Human Capital has multiple roles, either as independent or exogenous, mediating, and moderating variables.

Research which states the importance of a Strategic Orientation to improve Innovation Performance and achieve CSL is not proven in this study. Innovation Performance is not sufficiently supported by a Strategic Orientation. Likewise, CSL is not supported by direct Strategic Orientation or through Innovation Performance. So, this research adds to the inconsistency of previous research which encourages the need for antithesis from this study.

This research obtains a new study on the determinants of the variables that shape the achievement of CSL, namely Operational Resilience indirectly through Innovation Performance and Human Capital with a role as a moderating variable on the relationship between Operational Resilience and Strategic Orientation to Innovation Performance, and the relationship between Innovation Performance towards CSL.

Conclusion

The longevity of firms is an interesting issue from a theoretical point of view. The ability of a company to prepare, to live on, to operate amid disruption requires the ability to absorb change and recover to its original position is becoming increasingly important. The herbal medicine and traditional medicine industries as cultural heritage always face challenges of longevity of business. As a cultural heritage, herbal medicine and its industry must be preserved with good support from a technical, regulatory, and commercial perspective so that herbal medicine companies do not enter a period of decline. Responding to changes in the business environment, it is important to pay special attention to the factors that ensure CSL.

The main step that herbal and traditional medicine companies must take in achieving the CSL is to

build Innovation Performance. To achieve Innovation Performance, efforts can be made to optimize Operational Resilience which can be applied by strengthening Human Capital. In this research, it is proven that in addition to being a precursor to the achievement of the Company's Innovation Performance and CSL, Human Capital can also function as an amplifier (moderation) for innovation performance to achieve CSL.

The scope of research can be expanded by obtaining more IOT and IEBA coverage to obtain more analytical opportunities, in addition to more

diverse characteristics. For further research, a more complete measure of CSL can be used in line with the increasing number of research on this topic, especially the topic of sustainability which is increasingly relevant. Comparing the results of the study with data collection at different times, it is possible to get findings and conclusions that strengthen this research, or even be different. This research model can also be used to apply to other manufacturing or service industries to get the consistency of this research model in a variety of different industries.

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