

Level up the Business Performance: Contribution of Human Capital, Penta Helix and Survival Strategies in Creative Economy

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Abstract. The culinary industry is increasingly stretched in Indonesia, it is predicted that the culinary industry is one of the pillars in the creative industry. The culinary industry sub-sector is growing due to cultural and lifestyle shifts, as well as technological developments as one of the factors that determine the success or failure of a culinary business in the digital era that shifts from offline to online. Under that circumstances, culinary business actors must implement survival strategies to strive in this business. This study aims to examine the concepts of *Penta Helix* and Human Capital in utilizing the survival strategies in which contribute to the business performance in the culinary sub-sector of creative economy. Since the use of IoT has become viral in level up the business performance, culinary business actors who implement online selling has been the main concern of this research. The population in this study was all managers/owners of the Surabaya Culinary creative industry in collaboration with online delivery services (shopee food, go-food and grab food), with a sample of 68 respondents. The data analysis technique used the *Partial Least Square* (PLS). Based on the results of data processing, it was found that 1) Penta Helix has not yet been able to make a meaningful contribution to Culinary Business Performance 2) Human Capital is able to make a meaningful contribution to business performance at the opposite level. 3) Penta Helix is able to make a meaningful contribution to culinary survival strategies. 4) Human Capital is able to make a meaningful contribution to culinary business survival strategies. 5) survival strategies has a meaningful contribution to business performance on the opposite level.

Keywords: human capital, penta helix, survival strategies, business performance

I. Introduction

The creative economy is now the helpful tools for Indonesia in leveling national income in this post covid pandemic. The creative economy that exists in a country can have a social impact which leads to the implementation of life quality. Somehow, with a touch of "creativity", new things will be discovered, namely creative ideas. This creative idea, if it gets viral in nature, this idea can be applied easily (duplicated) by others and this also triggers in stimulating well-being, as well increasing social tolerance (for those people who duplicating that creative idea). The culinary sector, for example, is getting viral by the presence of "cheesy noodle". This success, instantly, is duplicated by others who wish to try opening the related culinary item in order to gain success and profit. Creative economy, as a strategic sector in national development contributes significantly to the national economy since this sector has proved in help many people survive while being terminated from their job. In fact, the President of the Republic of Indonesia, Joko Widodo has decided that this economic creative is placed to be the backbone of the Indonesian economy in producing added value to the image of national cultural identity. This is easily understood as Korea has got its K-wave (Korean wave) in some aspects such as Korean Pop (BTS, Black pink, NCT), Korean Drama, Korean food (Samyang, bulgogi, toepokki), Korean beauty, Korean fashion, and others. This Korean wave has penetrated to many countries and significantly contributes to Korea's national income.

According to statistical data and the Creative Economy survey (2017), until the end of 2014, the creative economy was able to contribute IDR 716 trillion or the equivalent of 7.06 percent of total gross domestic product (GDP). The creative economy sector incorporates aspects of innovation, creativity and ideas into creative and innovative products. Thus, a business venture that is developed will surely offer creative products that will attract the interest of the wider community to consume them. In addition, the creative economy emphasizes aspects of exploring and exploiting ideas that will bring economic and social performance that has an impact on increasing income for actors involved in the sector. The data has shown that many labors are interested in involving in this sector as the number significantly grows annually since year 2012 until year 2019 in Indonesia.

Figure 1 shows that there has been significant growth from year to year in terms of the number of workers working in the creative economy sectors. The number of creative economic workforce reached 4.02 % compared to national workforce which was only 2.02%. The Indonesian Creative Economy Agency has categorized the creative economy in some sectors. There are about 16 sub-sectors of the creative economy which lately has attracted many consumers and still need to be developed and marketed widely. On the other hand, other sectors have got their own fans such as culinary. This condition contributes to the total amount of labor involved in each sector of economy creative. Overall, each economy creative sub sector has also become magnets and attracts many Indonesian citizens to work in this sectors.

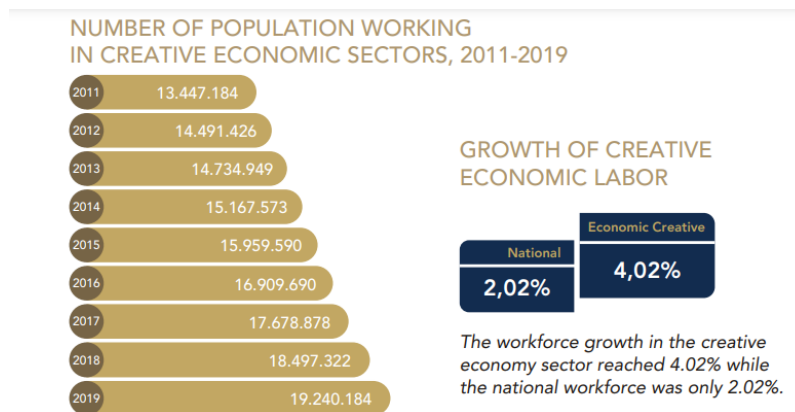


Figure 1. Number of Population working in Economic sector in 2011-2019



Figure 2. Distribution of Economy creative Labor by sub sector in 2019

The existence of many subsectors of economy creative, however, can also be a competitive advantage to other sub sectors. Some businesses last, but others can get bankrupts. For that circumstances, the actor of economy creative as entrepreneur needs to figure out how to make the business lasts in some period of time. First, as the growing in informal sectors, the IoT (Internet and other things) has possessed the operational system in Indonesia online business opportunities. The entrepreneur that can cope with that condition can compete with other business venture which has implemented that IoT strategy. So, the digital technology can bring many possibilities for the business in culinary. Of course, that really depend on the strategy of the entrepreneurs themselves. Second, as the social media helps marketing products effectively but the Mastery of technology is still a big homework as an important skill that must be possessed by business administrator hired by the management. Third, in culinary subsector for example, the business actors are competing digitally in market share by presenting culinary delights (making short video in tiktok, Instagram) that can attract and give attractive content to attract the most eligible market such as the millenials. If those generation get attracted in cyber world (or in other words the product becomes viral), automatically many orders are created and the digital business venture can gain profit consistently. Fourth, Various innovations in products are implemented by culinary business actors. Culinary entrepreneurs label the menu with peculiar and quite random ones such as “Mi Kuntilanak”, “Juice Bunuh Diri”. Creating new menu items such as color-changing noodles or lava burgers; to simply follow the latest food trends such as lava sauce on the existing menu. These innovative menus were then marketed massively in Instagram, whatsapp status, tiktok, and many others.

The highly changing condition in this industry is mentioned as strategy of survivals that closely related with the Helix concept, supported not only from academics, business people but also the government and interaction of social media. The actors plays the role of the human capital that become the motor in business venture. Data has shown that the Indonesia HDI (Human Development Index) needs to perform good progress to level up national index. The nation HDI rate is low at .62 point which ategorized into medium human development. The nation HDI is under Singapore at 0.89 and Brunei at 0.85 which are advancing in the category of very high of HDI. This situation has become limitations and gaps of Indonesia SMEs which can give impact not only to the Indonesian economy but also to the business performance. Strategies needs to be elaborated to increase ways to survive so that business performance can be increased

by the support of prospective customers in culinary sector and entrepreneurial orientation. Market indication is characterized by the planning in market strategy directed by buyer and business rival intelligence. Moreover, entrepreneurship orientation is referred to the company's growth goals which is characterized by the uncover market chance (Baker & Sinkula, 2009). Under those phenomena, researchers are investigating the survival strategies through the five Helix (Penta) and Human Capital which interact in accelerating Performance in business sector.

II. Literature Review

Penta Helix

Penta Helix is the interactions of five parties concerned in accelerating the business sector. The five elements are Academicians, entrepreneurs, Government, Citizens, and the Media and culture-based society was the integrated part in innovating (Park, 2013). The concept of innovators (Park, 2013) which was depicted from "the Triple Helix", then transformed into "Quadruple Helix" by the presence of society, finally was mentioned as "Penta Helix" with the support of technology in social media. Many studies were conducted in investigating the interactions of these helix elements. A study by Mulyana and Sutapa (2014) mentioned that the interaction of quadruple helix was implemented in fashion sector by investigating capability in innovating. Other research was also conducted by Halibas (2017) that investigated the five elements of Helix model interaction in Oman.

Survival Strategies

Adebisi and Bakare (2019) mentioned that survival strategies indicate that survival is what an organization needs in comprehending environment as complex part of success. An adoption for survival can putting away the organization from extinction apart other rivalry. Middle management of an organization must investigate and comprehend the competitive nature of its external and internal environment in order to survive that will be beneficial to implement a survival strategy. Furthermore, The business venture surroundings are spotted by continuous new thinking and implementation that reflects on the organization for ensuring its survival working in the ever-changing environment. Parnell (2010) also mentioned that any organization of each industry in its survival must possess a strategic commitment for a stipulated period to generate a sustained competitive advantage

Human Capital

References to research on the role of Human Capital in supporting the performance of small industries are strengthened by research conducted by Santos Helena et.al (2011) in his research entitled "System of Innovation and innovative SMEs: A Model to Measure the Intellectual Capital of SMEs". Likewise with the research of Seleim et al (2007), and F-Jardo'n and Markos (2009). Sharabati, et al (2010) mentioned that the variable of intellectual capital (IC including Human Capital) has a significant and positive effect on Business Performance (BP). Other research also mentioned that each Intellectual Capital variable (Human Capital, Structural Capital, and Relational Capital) also relate with business performance (Cabrita and Bontis, 2007).

The solid synergy of Penta Helix and the strength of Human Capital will have an impact on the strength of the survival strategies of the culinary business. Competitiveness is productivity which is defined as the output produced by labor (Porter, 1990). Competitiveness is a concept that refers to the ability of a company to compete with other companies to create value. Markovics (2005) mentioned that it is difficult to evaluate competitiveness. Survival strategies is formed by activating the right strategy in competing with other business strategy. Moreover, executing the appropriate strategy must calibrate with the business plans in order to the expected business targets and generate more income. Tambunan (2008a) mentioned that there are some characteristics in the competitive small medium enterprises:

1. the growth rate of production volume is upgraded
2. an enhancement in local and export market
3. the existence of local and national market share
4. Giving service for many countries in export market

III. Research Method

Population and Sample

This study investigated managers/owners located in Surabaya that run business in Food and Beverages, a sub sector in creative industry which is familiarly known as culinary. These businesses

integrate the e-commerce technology which is commonly used by Surabaya citizen as the online delivery services (Shopee food, GoFood, Grab food), with a sample of 68 managers/owners.

Analysis Techniques

The data was analyzed using the PLS as an effectual analytical method. The PLS is beneficial since the analyzed data can be in category, ordinal, interval to ratio scales and the sample size under 70 can be processed.

IV. Results and Discussion

Validity Analysis

The Outer Model

The variable that consists of five elements mentioned as Penta Helix and other three variables are included in the outer loadings table. The Factor loading correlate not only the variables of the research but also the indicators of variables. The indicator with factor loading greater than 0.5 and or the p-value = significant is valid and is an indicator/measurement of the variable.

Based on the outer loadings, the Penta Helix variable shows that all dimensions (Academics, Business, Civil Society, Government, Media) have a factor loading greater than 0.5 and p-values less than 0.001, so that the dimensions of Academics, Business, Civil Society, Government, Media are the Penta Helix variable gauges/indicators. Likewise the Human Capital variable results that all indicators have a factor loading greater than 0.5 and a significance value (p-value) less than 0.001, thus fulfilling convergent validity. This means that all of these indicators are valid and serve as a measure (indicator) of the Human Capital variable. The same thing is found in the Competitiveness variable indicating that all indicators have a factor loading greater than 0.5 and a significance value (p-value) less than 0.001, thus fulfilling convergent validity. That is, all of these indicators are valid and become a measure (indicator) of the variable Competitiveness. The Business Performance variable results that all indicators have a factor loading greater than 0.5 and a significance value (p-value) less than 0.001, thus fulfilling convergent validity. This means that all of these indicators are valid and serve as a measure (indicator) of Business Performance variables.

Average Variation Extracted (AVE)

The next measurement model is the Average Variances Extracted (AVE) value, which is the value indicating the magnitude of the indicator variance contained by the latent variable. The convergence of AVE values greater than 0.5 also indicates good adequacy of validity for latent variables. The reflective indicator variable can be seen from the Average Variance Extracted (AVE) value for each construct (variable). A good model is required if the AVE value of each construct is greater than 0.5. The test results show that the AVE value for the Penta Helix construct (variable), Human Capital, Competitiveness and Business Performance has a value greater than 0.5, so it is valid.

Table 1. Average Variances Extracted

	Average Variances Extracted (AVE)
Penta Helix :	
-Academics	0,785
-Business	0,766
-Civil Society	0,863
-Government	0,893
-Media	0,811
Human Capital	0,753
Survival Strategies	0,679
Business Performance	0.758

Reliability Analysis

Composite Reliability

The composite reliability value shows the reliability if the value is more than .70 then the consistency exists in indicators. The test results show that all the variables are reliable since they show the value's in composite reliability more than 0.7.

Table 2. Composite Reliability

	<i>Composite Reliability Coefficients</i>	<i>Cronbach's Coefficients</i>	<i>Alpha</i>
Penta Helix :			
-Academics	0.789	0.727	
-Business	0,837	0.739	
-Civil Society	0.869	0.756	
-Government	0.973	0.784	
-Media	0.947	0.843	
Human Capital	0.863	0.753	
Survival Strategies	0.876	0.789	
Business Performance	0.892	0.810	

The Inner Model

The structural model designed by the researcher must be tested and the result of test is carried out by looking at the R-Square value which is a goodness-fit model test. Inner model testing will show the R2 value about the exogenous variables of the structural model explain the endogenous (dependent/dependent) variables.

Table 3. R-Square Coefficients

	<i>R-Square</i>
Penta Helix	
Human Capital	
Survival Strategies	0.621
Business Performance	0.224

The overall R2 value at 0.7055 has showed that 70.55% can explain the Business Performance phenomena. The rest for about 29.45% shows that other variables (exclude the variable of structural model) are excluded in the model and errors. So in the structural model designed by the researcher, performance is 70.55% influenced by Penta Helix, Human Capital, and Competitiveness, and the rest 29.45% is influenced by other variables.

Hypothesis test

Direct hypothesis testing is carried out to determine the effect between research variables. The basis for the decision of the hypothesis uses a P-Values of 5%, if the results of the P-Values are less than 5%, then the hypothesis is stated to be significant and vice versa if the results obtained are P-Values of more than 5%, then the hypothesis is declared not significant. The final model is Survival strategies moderates the five elements of Helix, human Capital and the performance of the culinary business

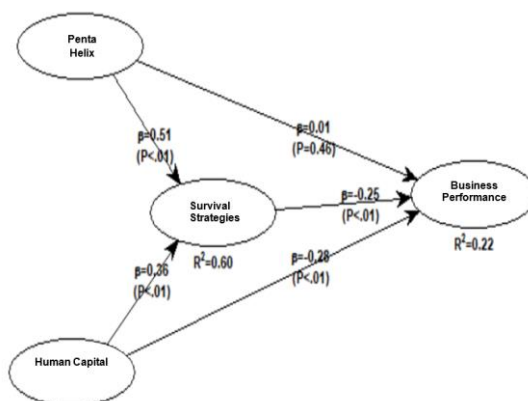


Figure 3. Model of Human Capital, Penta Helix, Survival Strategies and Business Performance

The direct effect in the following table shows that Penta Helix has a non-significant effect on Business Performance with a path coefficient of 0.011, where the P-Values = 0.462 is greater than the value $\alpha = 0.05$. The results of the study indicates that Penta Helix has not been able to make a significant contribution to Culinary Business Performance. It is understood comprehensively the Penta Helix does not stand alone,

since the Penta Helix consists of 5 dimensions. It should be suspected that the 5 dimensions have not worked with the concept of synergy, but have carried out more partial program activities. This means that, academics can provide support for exploring more advanced entrepreneurial concepts and theory, on the other hand, the government can suggest to regulations related with culinary sectors such as obligation of hygienic food, community health contribution, halal certification. On the other hand, the progress of online media development in order and delivery services (including culinary) has increased consumers to order massively even though the price for online is higher than offline selling. The offline culinary business people get effects. The above phenomena act as triggers and drivers for Penta Helix's non-significant contribution to culinary business performance.

Table 4. Results of the Direct Effect Test

	<i>Path Coefficients</i>	<i>Standard Error for Path Coefficients</i>	<i>P-Values</i>
Penta Helix -> Business Performance	0.010	0.116	0.459
Human Capital -> Business Performance	-0.279	0.110	0.005
Penta Helix -> Survival Strategies	0.510	0.087	<0.001
Human Capital -> Survival Strategies	0.360	0.124	<0.001
Survival Strategies -> Business Performance	-0.249	0.109	0.010

a path coefficient of -0.281 indicates that Human Capital contributes to a negatively significant effect on Business Performance with the values of P is 0.005, α value is 0.05. Managing a culinary business has a more specific character. The high level of education and competency as well as increased knowledge development does not guarantee the expected higher business performance. The main characteristic that many reliable culinary experts have is that they are based more on talent and business persistence, and the most important thing is to prioritize the culinary core product, namely "taste". Often the culinary business relies more on prominent facilities, facilities and infrastructure, without compensating for the "taste" of good food. The above phenomenon is suspected as the cause of the contribution of Human Capital to business performance in the opposite direction. The reliability of the human resources that included in this business is greatly affected by the surroundings in the workplace, if the workplace didn't support the employee in the industries or push employees too much, it is certain that their performance will decrease, because with an adequate work environment and support for employee performance, it is certain that business performance will increase

Meanwhile, a path coefficient of 0.509 indicates that Penta Helix contribute to a positive significant impact on Survival Strategies, the P Values = < 0.001 is smaller than the value $\alpha = 0.05$. The solid Penta helix and the strong Human Capital will have an impact on the strength of the competitiveness of the culinary business. The interaction between Penta Helix and Human Capital will have an impact on the strength of the culinary business survival strategies. Survival strategies can explain the capability of a culinary business to strive with other culinary businesses in gaining more value. Next, the 5 helix involvements give effect on the business especially in the survival strategies' culinary sector.

Human Capital has a positive and significant effect on survival strategies with a path coefficient of 0.359, where the P-Values = < 0.001 is smaller than the value $\alpha = 0.05$. Culinary business people compete with each other to seize consumers in creating value for their products, both through excellent service and the provision of comfortable facilities, infrastructure and places. This is done as an effort to increase the competitiveness of the business they are involved in. In such an effort, some consumers in certain classes will like this condition, which sometimes does not pay too much attention to the "taste" of the food served. Such a culinary business is liked by consumers who enjoy food dishes with a modified view of a comfortable atmosphere, attractive facilities as the main consideration. Such phenomena are not really prioritized for food businesses that serve services via ONLINE in collaboration with ONLINE transportation (GrabFood), but prioritize "taste".

Meanwhile, this study contributes to survival strategies which has a negative and significant effect on Business Performance with a path coefficient of -0.254, where the P-Values = 0.010 is smaller than the value $\alpha = 0.05$. A strong culinary survival strategy should have an impact on high culinary business performance. Efforts to increase the survival strategy will have an impact on business performance can be influenced by increasing the market share. A business venture in culinary sector culinary entrepreneurs do not give strong attention in attracting more consumers in being loyal with the products. Culinary market is now filled with many newcomers that attract many people attention with price cut, bonus, free product, new products and many more. Customers are spoiled with many new sensation offered by the new comers in

culinary sectors. Especially in the creative industry we must find a unique and special ways to make our product different, because if our products are unique and special this makes our products cannot be imitated by other people, because the business or product that we have must have its own signature mark that can make people recognize our product, even in the worst case our product has been copied or modified by someone else

Table 5. Indirect Influence Test Results

	<i>Path Coefficients</i>	<i>Standard Error for Path Coefficients</i>	<i>P-Values</i>
Penta Helix ->Survival Strategies-> Business Performance	-0.132	2.37	0.029
Human Capital-> Survival Strategies -> Business Performance	-0.086	1.95	0.038

The indirect effect in Table 5 shows that Penta Helix has a negative and significant effect on Business Performance through Survival strategies with a path coefficient of -0.132, where the P-Values = 0.029 is smaller than the value $\alpha = 0.05$. Human Capital has a negative and significant effect on Business Performance through survival strategies with a path coefficient of -0.086, where the P-Values = 0.038 is smaller than the value $\alpha = 0.05$.

V. Conclusion

Penta Helix has not been able to make a significant contribution to Culinary Business Performance. This study suggests that the Penta Helix concept has not been able to make a significant contribution to culinary business performance because the five dimensions of the Penta Helix (academics, business, civil society, government, media) have not worked together synergistically. Instead, they have carried out more partial program activities. This lack of synergy may be due to the need for academics to provide more support in exploring advanced entrepreneurial concepts and theories, and for the government to suggest regulations related to the culinary sector. Additionally, the study suggests that the progress of online media development and online delivery services has increased consumer demand, which may have affected the contribution of the Penta Helix concept to culinary business performance.

Human Capital is able to make a significant contribution to business performance with the opposite level. The negative impact of human capital on business performance in the culinary industry can be attributed to the fact that the high level of education, competency, and knowledge development of culinary experts does not guarantee higher business performance. Instead, the success of culinary businesses in terms of performance is more reliant on talent, business persistence, and prioritizing the core product, which is the "taste" of the food. Additionally, some culinary businesses may focus more on prominent facilities and infrastructure rather than the quality of the food, which can lead to a negative impact on business performance.

Penta Helix is able to make a significant contribution to Culinary Survival Strategy. The Penta Helix concept contributes to culinary survival strategies by providing a solid synergy between different stakeholders in the culinary industry. The Penta Helix consists of five dimensions: academics, business, civil society, government, and media. Each dimension plays a role in supporting and enhancing the survival strategies of culinary businesses. (1) Academics can contribute by providing research, knowledge, and training programs that help culinary entrepreneurs develop effective survival strategies. They can also offer insights into market trends, consumer preferences, and innovative culinary techniques. (2)Businesses, including culinary establishments, can collaborate and share best practices to improve their survival strategies. They can also form partnerships with other businesses in the industry to create a stronger competitive advantage. (3)Civil society, such as food enthusiasts and culinary communities, can provide valuable feedback and support to culinary businesses. They can help promote local culinary culture and create a sense of community around the culinary industry. (4)Government involvement is crucial in creating a conducive environment for culinary businesses to thrive. They can provide regulations and policies that support the growth of the industry, ensure food safety and hygiene standards, and offer financial incentives or assistance to culinary entrepreneurs. (5)Media plays a significant role in promoting culinary businesses and their survival strategies. They can provide exposure and publicity through various channels, such as food blogs, social media, and television shows. Media coverage can help attract customers and increase the visibility of culinary establishments.

Overall, the Penta Helix concept emphasizes the importance of collaboration and synergy among different stakeholders in the culinary industry to enhance survival strategies and ensure the long-term success of culinary businesses. Human Capital is able to make a significant contribution to culinary survival strategy. Because human capital that have synergy with survival strategy, Because Human Capital has a positive and significant effect on survival strategies in the culinary industry. This means that the level of education, competency, and knowledge development of individuals in the culinary business can contribute to the development and implementation of effective survival strategies. These strategies may include attracting and retaining loyal customers, providing excellent service, and creating a comfortable atmosphere and attractive facilities. Human Capital plays a crucial role in understanding consumer preferences and adapting the business to meet their needs, ultimately contributing to the survival and success of the culinary business.

Culinary survival strategy is able to make a significant contribution to Business Performance with the opposite level. Because culinary survival strategies have a negative and significant effect on business performance with the opposite level. This means that implementing survival strategies in the culinary business can actually have a detrimental impact on business performance. The study suggests that culinary entrepreneurs may not be giving strong attention to attracting more loyal consumers and may be facing competition from newcomers in the culinary market who offer price cuts, bonuses, free products, and new sensations. These factors can attract consumers' attention away from established culinary businesses, leading to a decrease in business performance.

Academic parties, especially universities that opens entrepreneurship study programs must have set the appropriate curriculum for students to know how to set the appropriate action in their survival mode for any new business openings. Students will be future entrepreneurs that will run their own business venture. So as a competent intellectual capital, they must be aware with the business environment (internal and external) so the business venture can be managed effectively. Nowadays, a more complex synergy of the 5 helix (academics, business, civil society, government, media) must provide implementation rather than planning in calibrating all the 5 sub helix perspectives.

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