

Personality Characteristics of Entrepreneur and Business Survival: The Role of External Environments

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ABSTRACT

Entrepreneurial is one of the solutions for a country to face an economic crisis and reduce the country's unemployment problem. However, no more than 50% of the startup business can survive in the first three years. The Open System Theory explains that there is a positive relationship between external environmental factors and business activities. This study tries to provide the complex relationship between Self-efficacy, Risk-taking propensity, Innovativeness, and business survival with technology turbulence as the moderating variable. The data collection was provided through literature review from the previous study as the predictor. The contribution of this study is the clarification of the facts of personality characteristics of entrepreneurs and the indication that external environments can moderate the personality characteristics of an entrepreneur. The result shows that risk-taking propensity and Innovativeness positively affect business survival and will be best influencing at the moderate level.

Keywords: Risk-taking propensity, Technology Turbulence, Self-Efficacy, Entrepreneurship, Innovation, Business Performance, Open System Theory.

1. Introduction

The various number of SMEs rising quickly every years but no more than 50% will survive in their first five years (Korunka *et al*, 2010 ; Marivate, 2014 ; Gonzalez, 2017) or even more than 75% fail in their first three years (Ladzani, 2009 ; Ligthelm & Brilal, 2012). The difference of internal and external environments become the factors that influence the survival rate of each SMEs (Virglerova *et al*, 2020; Fatoki, 2018; Bercovitz & Mitchell, 2007; Praag, 2003). In the other hand, the SMEs has been proven as the vital assets on keep the economy of the country (Thames, 2021). This is a strong reason to know which environment made the business survival rate become better.

Indonesia has the number of 65.5 millions SMEs in 2019 or about 4.13% of the population (BPS, 2021). It is about 99.99% of total enterprises in Indonesia. Taiwan has the number of 1.5 millions SMEs in 2020 or about 21.18% of the total population (MOEA Taiwan, 2021). With the total 98.93% of the total enterprises in Taiwan, this country frequent to ask foreign workers to help the businesses. The high percentage of SMEs compared to the total population indicate the capabilities of the country to face the crisis and strengthen the economy. In the other hand, these two different situation indicate the different business survival rate and different condition on the environment.

2. Literature Review

2.1 Business Survival

Business survival is influenced by many factors, such as the Industrial life cycle (Agarwal, 1997), the sector's technology turbulence (Schumpeter, 1942; Audretsch, 1995; Mata et al., 1995; Aghion et al., 2001; Pranoto, 2018), the size and age of business (Evans, 1987; Geroski, 1995; Sutton, 1997; Cefis and Marsili, 2005), the pre-experience of the entrepreneur (Boeker, 1988; Klepper, 2002; Thomson, 2005), the business profitability and financial health (Ortiz *et al.*, 2018), business competitiveness (Noor, 2013), as well as the personal characteristics (Korunka *et al.*, 2010) and the characteristics of the market (Audretsch and Mahmood, 1995; Mata et al., 1995; Agarwal and Gort, 2002). The technology turbulence as the external environment are influence internal environment as the open system theory stated by Berglund & Sandstrom (2013).

2.2 Internal Environment to Business Survival

Internal Environment come from the inner organization of the SMEs, as like the personal characteristics of the entrepreneur/owner (Alshura & Assuli, 2017; Moran, 1998). The personal characteristics bring the good wave on business survival (Korunka *et al.*, 2010). Personal characteristics of the entrepreneur can be define as characteristic that owned by an entrepreneur on running the business. As part of the personal characteristics of entrepreneurs, the risk-taking propensity, self-efficacy, and Innovativeness can influence the business survival of SMEs to a better result (Bandura & Adam, 1977; Hytinen, 2015; Ortiz, 2018; Moran, 1998).

2.2.1 Risk-Taking propensity

Risk-taking propensity comes from risk-taking behavior that is a personal preference on taking some risks to exchange with something else (Antontic *et al.*, 2018). This personal characteristic may crucial for an entrepreneur to decision making process. The entrepreneur may face dilemmatic issues because the risks in their problem solving options. Pranoto (2018) and Schilke (2014) state that SMEs are a high risk business. The bigger the business size, the bigger resource can be gather and maintain, and the bigger risk they will face. The owner or the entrepreneur will take the responsibility on making the decision. According to Kamalanabhan (2000), SMEs facing several kind of risk they need to take, such as prestige risk, commitment risk, career risk, and physical and mental well-being risk.

2.2.2 Innovativeness

The previous research proof that innovativeness has positive affect to business survival. Rosenbusch (2011) show a detail meta-analysis of the innovativeness-business survival among the small and medium enterprises (SMEs). Song *et al.* (2008) and Hytinen *et al.* (2015) report the same result as positive relationship among innovativeness and performance, evidence showed the results may be context-dependent and heterogenous. Covin *et al.* (2020) state that innovativeness can be measure as how faster an entrepreneur can adopt with renewal and change, how fast they can master new routine and works, and how they prefer to creative things rather than mainstream things.

2.2.3 Self-Efficacy

Self-efficacy is an individual's assessment of their ability to complete a task, meet a goal, or generate something (Baron and Byrne, 2000). Personal belief in self-control, self-motivation, cognition, affection, and social environment are all linked to self-efficacy. Self-efficacy has a significant impact on achieving some of one's objectives. According to a prior study by Ie and Visantia (2013) and Wibisono *et al* (2019), self-efficacy has a positive and significant impact on business survival.

2.3 External Environment

In today's fast-changing and unpredictable environments, open system theory is a modern system-based changed management theory aimed at fostering healthy, innovative, and resilient organizations and communities (Mbithi *et al*, 2017). The Open-system model is focus on how external environment can influence the internal organization directly or indirectly. External environment has five factors, they are political factors, Economic factors, socio-cultural factors, and technology factors.

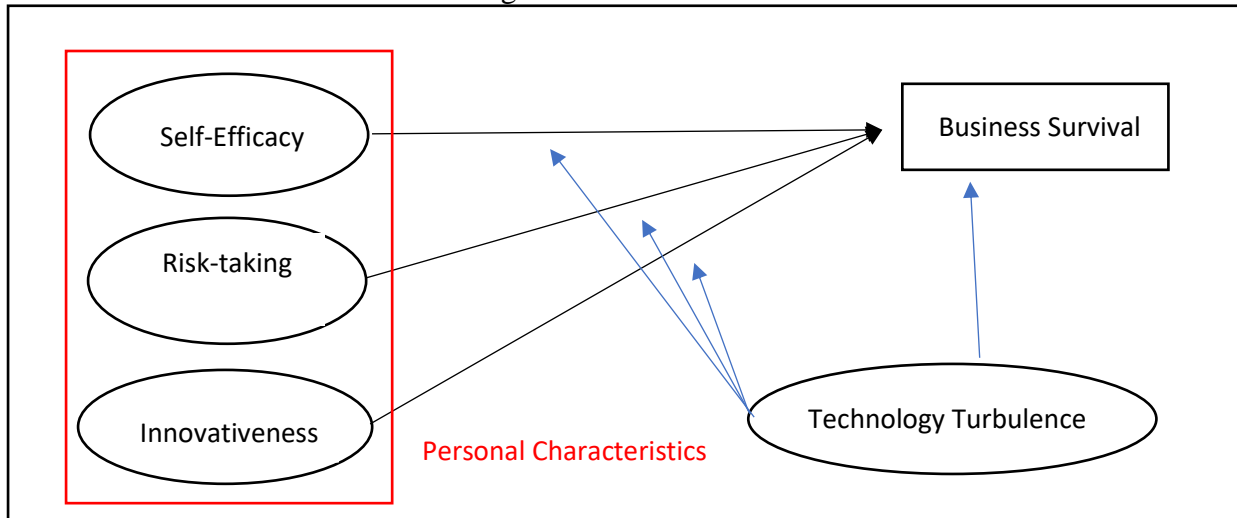
The risk-benefit analysis is also used to determine the immaturity of SMEs' capacity to adopt technologies (Kim *et al.*, 2016). SMEs identify the low-risk technological arbitrage potential with imitable technology complexity, while having a weaker R&D capability and less resources (Shin and Lee, 2013). Under predicted technological turbulence, SMEs with a strong purpose to capture commercial opportunities will achieve high performance (Pratono, 2018).

As a result of their lack of investment resources and IT expertise, SMEs are unable to tolerate performance or security risks (Kim *et al.*, 2016). When technology turbulence is high, companies underperform. When technological turbulence is low, firms do well (Carbonell and Escudero, 2015).

3. Research Methodology

This is literature review paper, which gather several paper and describe the expected result based on the previous research. The data was collected from Elsevier, Emerald, google scholar, official website, country law, and other publisher and proceeding available. The researcher gather more than 100 articles from May, 2021 until October, 2021. The keywords on searching the reference are macro environment, external environment, internal environment, micro environment, SMEs' growth in Taiwan, SMEs growth in Indonesia, SMEs' survival rate, business performance, business survival, technology turbulence, self-efficacy, risk-taking propensity, risk-taking behavior, and innovativeness.

Figure 1. Framework



4. Results

Based on the framework, all of the independent variables were connected to business survival. However, Technology turbulence cannot stand independently. It just become the moderator of the relationship between risk-taking propensity and business survival.

According to Wibisono (2019) and Bandura & Adam (1977), self-efficacy has positive impact to business survival. Entrepreneurs that have more self-efficacy could bring their business more survivable. Which means, if the entrepreneurs cannot understand well about themselves and have not enough motivation and belief in their capabilities, they may bring the business survival rate lower than others.

Pranoto (2018) state that risk-taking propensity has positive affect to the business survival. The result in line with Antoncic *et al* (2018) finding, that the higher risk-taking propensity of the entrepreneur, the higher their business survival. The technology turbulence has relationship with risk-taking propensity as the moderator on business survival. According to Pranoto (2018), the high technology turbulence bring the less effective of risk-taking propensity on business survival.

The relationship between innovativeness and business survival has been proven by Hyytinen *et al* (2015). Innovativeness has positive affect to business survival. The innovation from the entrepreneur make the business survival rate higher than if the entrepreneur has no innovation. The same result also shown in Ortiz-Villajoz & Sotoca (2018) and Ogbeibu *et al* (2020), that innovativeness of the entrepreneur bring more business survival on their business. Ogbeibu *et al* (2020) also proof that there are no direct or indirect effect of technology turbulence to the relationship between business survival and innovativeness.

5. Discussion

Bandura & Adam (1977) proof that self-efficacy will influence the performance (business survival) by making the plan management and operational linear with the capability of the organization. This statement make sense as founded by Wibisono (2019) that when the entrepreneur understand well about themselves, their goal setting and implementation can bring

better survival rate. Entrepreneur can increase their self-efficacy by experience and lesson from the network. Especially, most of SMEs dominated influence by the owner as entrepreneur.

Antoncic *et al* (2018) argue that the best result of the relationship between risk-taking propensity and business survival is when the technology turbulence in the moderate level. Which means that if there are no turbulence on technological in the industry, it also bring the result not to the best performance. Entrepreneur that has high enough risk-taking propensity, they tend to run a good business survival, especially when they open the SMEs into the industry that has moderate turbulence on technological.

We discovered that the combination of entrepreneurs' increased risk appetite and their innovativeness decreases the chances of their businesses survival. This conclusion is in line with the findings of Buddelmeyer et al. (2010), who claim that the probability of survival varies depending on the risk level of innovations. It also aligns with the findings of Forlani and Mullins (2000), who claim that risk-averse entrepreneurs are more inclined to engage their businesses in riskier innovative endeavors. These data show that the effect of entrepreneurial risk-taking is task-dependent, and that it is especially important for innovativeness.

6. Conclusion

This study gives an account of business survival and provides a literature evidence to confirm that personal characteristics of entrepreneur positively affects business survival. Not as the open system theory state, the technology turbulence as external environment not affecting all the internal environment of the entrepreneurs, except the risk-taking propensity. This study show that the turbulence of technological in industry may has other relationship with other managerial risk. The next study should be try to find more potential relationship among internal and external environment in terms of business survival.

References

- Agarwal, R., Gort, M., 2002. Products and firm life cycles and firm survival. *Am. Econ. Rev.* 92 (2), 184–190.
- Aghion, P., Harris, C., Howitt, P., Vickers, J., 2001. Competition, imitation and growth with step-by-step innovation. *Rev. Econ. Stud.* 68 (3), 467–492.
- Alshura, M. S. K., & Al Assuli, A. H. (2017). Impact of Internal Environment on Performance Excellence in Jordanian Public Universities from Faculty Points of View. *International Journal of Business and Social Science*, 8(1), 45–57.
- Antoncic, Jasna Auer; Antoncic, Bostjan; Gantar, Matjaz; Hisrich, Robert D.; Marks, Lawrence J.; Bachkirov, Alexandre A.; Li, Zhaoyang; Polzin, Pierre; Borges, Jose L.; Coelho, Antonio; Kakkonen, Marja-Liisa (2018). Risk-Taking Propensity and Entrepreneurship: The Role of Power Distance. *Journal of Enterprising Culture*, 26(1), 1–26. doi:10.1142/S0218495818500012
- Audretsch, D.B., Mahmood, T., 1995. New firm survival: new results using a hazard function. *Rev. Econ. Stat.* 77 (1), 97–103.
- Audretsch, D.B., 1995. Innovation, growth and survival. *Int. J. Ind. Organ.* 13 (4), 441–457.
- Bandura, A. (1997). *Self-Efficacy: The Exercise of Control*. Freeman and Company. New York.
- Baron, R.A., and D. Byrne. (2000). *Social Psychology: Understanding Human Interaction*, Allyn & Bacon, Boston.
- Bercovitz, Janet; Will Mitchell (2007). When is more better? The impact of business scale and scope on long-term business survival, while controlling for profitability. , 28(1), 61–79. doi:10.1002/smj.568

- Berglund, H. and Sandström, C. (2013) 'Business model innovation from an open systems perspective: structural challenges and managerial solutions', *Int. J. Product Development*, Vol. 18, Nos. 3/4, pp.274–285.
- Bureau, S. (2021, August). Unemployment Rate - National Statistics, Republic of China (Taiwan). National Statistics, Republic of China (Taiwan). Retrieved October 19, 2021, from <https://eng.stat.gov.tw/point.asp?index=3>.
- Boeker, W., 1988. Organizational origins: entrepreneurial and environmental imprinting at the time of founding. In: Carroll, G. (Ed.), *Ecological Models of Organizations*. Ballinger, Cambridge, MA, pp. 33–51.
- Buddelmeyer, H., Jensen, P.H., Webster, E., 2010. Innovation and the determinants of company survival. *Oxf. Econ. Pap.* 62, 261–285.
- Carbonell, P. and Escudero, A.I. (2015), "The negative effect of team's prior experience and technological turbulence on new service development projects with customer involvement", *European Journal of Marketing*, Vol. 49 Nos 3/4, pp. 278-301.
- Cefis, E., Marsili, O., 2005. A matter of life and death: innovation and firm survival. *Ind. Corp. Change* 14 (6), 1167–1192.
- Covin, Jeffrey G.; Rigtering, J.P. Coen; Hughes, Mathew; Kraus, Sascha; Cheng, Cheng-Feng; Bouncken, Ricarda B. (2020). Individual and team entrepreneurial orientation: Scale development and configurations for success. *Journal of Business Research*, 112(), 1–12. doi:10.1016/j.jbusres.2020.02.023
- Evans DS. 1987. The relationship between firm growth, size, and age: estimates for 100 manufacturing industries. *Journal of Industrial Economics* 35: 567–581.
- Fatoki, Olawale (2018). The Impact of Entrepreneurial Resilience on the Success of Small and Medium Enterprises in South Africa. *Sustainability*, 10(7), 2527–. doi:10.3390/su10072527
- Forlani, D., Mullins, J.W., 2000. Perceived risks and choices in entrepreneurs' new venture decisions. *J. Bus. Ventur.* 15, 305–322.
- Geroski, P.A., 1995. What do we know about entry? *Int. J. Ind. Organ.* 13 (4), 421–440.
- Gonzalez, Gilbert. 2017. What Factors Are Causal to Survival of a Startup?. *Muma Business Review*. Vol-1, No.9.
- Hyytinen, Ari; Pajarinen, Mika; Rouvinen, Petri (2015). Does innovativeness reduce startup survival rates?. *Journal of Business Venturing*, 30(4), 564–581. doi:10.1016/j.jbusvent.2014.10.001
- Ie, M., & Visantia, E. (2015). Pengaruh Efikasi Diri dan Motivasi terhadap Keberhasilan Usha pada Pemilik Toko Pakaian di Pusat Grosir Metro Tanah Abang, Jakarta. *Jurnal Manajemen Maranatha*, 13(1). <https://doi.org/10.28932/jmm.v13i1.139>
- Kamalanabhan, T.J.; Sunder, D.L.; Vasanthi, M. (2000). AN EVALUATION OF THE CHOICE DILEMMA QUESTIONNAIRE AS A MEASURE OF RISK-TAKING PROPENSITY. *Social Behavior and Personality: an international journal*, 28(2), 149–155. doi:10.2224/sbp.2000.28.2.149
- Kim, J., Lee, C.-Y., 2016. Technological regimes and firm survival. *Res. Policy* 45 (1), 232–243.
- Klepper, S., 2002. The capabilities of new firms and the evolution of the US automobile industry. *Ind. Corp. Change* 11 (4), 645–666.
- Korunka, Christian; Alexander Kessler; Hermann Frank; Manfred Lueger (2010). Personal characteristics, resources, and environment as predictors of business survival. , 83(4), 1025–1051. doi:10.1348/096317909x485135
- LADZANI, W. M. & NETSWERA, G. F. 2009. Support for rural Small Businesses in Pretoria, South Africa. *Development Southern Africa*, 26(2): 14-21.
- LIGTHELM, A.A. & van WYK, A.M.A.2004. Informal Trading in Tshwane: Regulatory, Spatial and Economic Framework. Second Draft Report.
- Marivate, S. P. (2014). THE IMPACT OF ENTREPRENEURIAL SKILLS ON THE VIABILITY AND LONG-TERM SURVIVAL OF SMALL BUSINESSES: A CASE OF THE CITY OF TSHWANE, SOUTH AFRICA. *European Journal of Business, Economics and Accountancy*, 2(2), 53–72. <https://doi.org/ISSN 2056-6018>
- Maron, Paul. 1998. Personality Characteristics and Growth-orientation of the Small Business Owner-manager. *International Small Business Journal*. Sagepub. vol-16, no.3.

- Mata, J., Portugal, P., Guimaraes, P., 1995. The survival of new plants: start-up conditions and post-entry evolution. *Int. J. Ind. Organ.* 13 (4), 459–481.
- Mbithi, Beson et al.; 2017. Macro environment moderating Effects on Strategy and Performance. *Haya: Saudi J. Life Sci.*; Vol-2, Iss-5:197-209
- Noor, H.F. (2013). *Ekonomi Manajerial*, Raja Grafindo Persada, Jakarta.
- Ogbeibu, Samuel; Emelifeonwu, Jude; Senadjki, Abdelhak; Gaskin, James; Kaivo-oja, Jari (2019). Technological turbulence and greening of team creativity, product innovation, and human resource management: Implications for sustainability. *Journal of Cleaner Production*, (), 118703–. doi:10.1016/j.jclepro.2019.118703
- O'Neill, A. (2021, July 1). Indonesia - unemployment rate 2020. Statista. Retrieved October 19, 2021, from <https://www.statista.com/statistics/320129/unemployment-rate-in-indonesia/>.
- Ortiz-Villajos, J.M., 2017. Forms of innovation throughout time: insights from the British business elite. *Innov. Organ. Manag.* 19 (4), 428–451.
- Ortiz-Villajos, J.M.; Sotoca, Sonia. 2018. Innovation and business survival: A long-term approach. *Research Policy*, (), S0048733318301094–. doi:10.1016/j.respol.2018.04.019
- Pratono, Aluisius Hery (2018) "Does firm performance increase with risk-taking behavior under information technological turbulence?: Empirical evidence from Indonesian SMEs", *The Journal of Risk Finance*, <https://doi.org/10.1108/JRF-10-2017-0170>
- Praag, C.M.van. 2013. *Business Survival and Success of Young Small Business Owners: an Empirical Analysis*. Tinbergen Institute Discussion Paper.
- Rosenbusch, N., Brinckmann, J., Bausch, A., 2011. Is innovation always beneficial? A meta-analysis of the relationship between innovation and performance in SMEs. *J. Bus. Ventur.* 26, 441–457.
- Schumpeter, J.A., 1942. *Capitalism, Socialism and Democracy*. Harper & Row, New York.
- Schilke, O. (2014), "On the contingent value of dynamic capabilities for competitive advantage: the nonlinear moderation effect of environmental dynamism", *Strategic Management Journal*, Vol. 35 No. 2, pp. 179-203.
- Shin, J. and Lee, H. (2013), "Low-risk opportunity recognition from mature technologies for SMEs", *Journal of Engineering and Technology Management*, Vol. 30 No. 4, pp. 402-418.
- Song, M., Podoyntsyna, K., van der Bij, H., Halman, J.I.M., 2008. Success factors in new ventures: a meta-analysis. *J. Prod. Innov. Manag.* 25, 7–27.
- Sutton, J., 1997. Gibrat's legacy. *J. Econ. Lit.* 35 (1), 40–59.
- Thames, Glendownlyn. 2021. *Entrepreneurs and Small Businesses Are Vital to Our Economy and We Must Nurture Both Treating them as equal partners in revitalizing our communities*. *Entrepreneur Asia Pasific*. Accessed: October, 2021
- Thomson, P., 2005. Selection and firm survival: evidence from the shipbuilding industry, 1825–1914. *Rev. Econ. Stat.* 87 (1), 26–36.
- Virglerova, Z., Conte, F., Amoah, J., & Massaro, M. R. (2020). The Perception of Legal Risk and Its Impact on the Business of SMEs. *International Journal of Entrepreneurial Knowledge*, 8(2), 1-13. doi: 10.37335/ijek.v8i2.115
- Wibisono, R. S., Praptapa, A., & Arofah, T. (2019). Factors Affecting Business Performance In Community-Based Smes In Indonesia. *International Conference on Rural Development and Entrepreneurship 2019: Enhancing Small Business and Rural Development Toward Industrial Revolution 4.0*, 5(1), 1454–1462.