

Industrial Competition, Hybrid Strategy and Industrial Performance: Study in Higher Education Industry in Timor-Leste

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Abstract: The hybrid strategy has gained high interests from practitioners and researchers in recent days in order to improve industrial competitive advantage and performance. This study aims to examine the role of hybrid strategy in mediating in the relationship between industrial competition and performance. Theories and empirical studies have been carried out for the construction of the hypothesis. Questionnaires have been distributed, filled up and returned by 130 heads of departments in eleven accredited higher education institutions in Timor-Leste. Smart Partial Least Square (Smart-PLS) was used to test the hypothesis. The results of this study shows that the industrial competition does not significantly influence the industrial performance of the higher education industry while hybrid strategy is fully mediating the relationship between the two variables. This research confirms that hybrid strategies can be used to enhance industrial performance in high intense industrial competition environment. Governments and managers of the higher education industry can also develop policies and strategies to improve quality, competitive advantage and performance of the higher education industry by combining cost leadership strategy and focus on service strategy in emerging countries such as Timor-Leste.

Key words: Industrial competition, hybrid strategy, business performance, higher education industry, relationship, strategy

INTRODUCTION

Hybrid strategy has gained high interests for practitioners and researchers to study and develop, aiming to enhance industrial competitive advantages and performance (Du, 2018; Salavou, 2013; Walsh and Sanderson, 2008; Yuliansyah *et al.*, 2017) in recent competitive industrial environment, uncertainty, high rates of product and service imitation and rapid changes in customer demands require companies not only to rely on a single strategy (Gabrielsson *et al.*, 2016; Hansen *et al.*, 2015). Hybrid strategy emerges as a critique for Porter's strategy that companies or organizations can only choose one strategy, either differentiation strategy or cost leadership strategy to improve competitive advantages and performances if they choose both, then it will face stuck-in-the middle (Porter, 1985; Baroto *et al.*, 2012).

Hybrid strategy has been widely carried and merely focused on the combination of differentiation strategies and cost leadership strategies in manufacture

industries (Salavou, 2010, 2015; Hansen *et al.*, 2015; Gabrielsson *et al.*, 2016; Gonzalez-Rodriguez *et al.*, 2018). The combination of Porter's cost leadership strategy and service strategy focus has not been grabbed sufficient attention, particularly in the higher education industry (Saldanha *et al.*, 2018). By contrast in developing countries, customers want to get products and services with the reasonable quality and affordable cost through soft services. Thus, the cost leadership strategy and the focus of service strategy which is highly related to customer satisfaction can be the choice to enhance industrial competitive position. Unfortunately, until now there has been no empirical study of hybrid strategy integrating cost leadership strategy and service strategy in higher education industry in developing countries.

This study fills the abovementioned empirical gap by examining the hybrid strategy and its effect on the performance of the higher education industry. In this study, the hybrid strategy is developed based on the combination of indicators of cost leadership strategy and

the focus of service strategy from Saldanha *et al.* (2018) derived from empirical studies of Banker *et al.* (2014), Hansen *et al.* (2015), Ortega (2010) and Oyewobi *et al.* (2016a, b) for cost leadership strategy and Chui *et al.* (2016), Cardona and Bravo (2012), Abdullah (2006), Gruber *et al.* (2010), Trivellas and Dargenidou (2009) for focus of service strategy. The objectives of this study is to examine: The influence of industrial competition on the business performance of higher education industry. The role of hybrid strategy in mediating the relationship between industrial competition and performance of the higher education industry in Timor-Leste. This research confirms that hybrid strategy can increase industrial performance in high intensity of competition, uncertainty, complexity and technological advance era. This research can also help governments and managers of the higher education industry to adopt strategic fitness to improve the competitive advantage and performance of the higher education industry in Timor-Leste.

Theoretical framework

Industrial competition: Industrial competition is generally affected by external and internal factors. External factors are know as Porter’s five forces namely competition rivalries, threat of substitutes, power of suppliers, power of buyers and threat of new entrants (Mathooko and Ogutu, 2015). The five forces of Porter affect competitive advantage and industrial performance (Furrer *et al.*, 2008; Huang and Lee, 2012; Metts, 2007). Companies that successfully deal with these five external forces are able to enhance its competitive position and business performance.

The study of industrial competition and industrial performance has been widely carried out but the results are still varied. There are various studies showing that industrial competition has a negative or insignificant effect on industrial performance (Lee and Yang, 2011; Fosu, 2013; Teller *et al.*, 2016; Assaf and Cvelbar, 2011; Huang and Lee, 2012; Saldanha *et al.*, 2018). Conversely, various studies also reveal that industrial competition has positive and significant impact on industrial performance (Chen, 2010; Hoque, 2011; Al-Rfou, 2012; Mia and Winata, 2014; Ghasemi *et al.*, 2015; Obembe and Soetan, 2015). To measure industrial competition, this study adopts indicators from Huang and Lee (2012) and Mathooko and Ogutu (2015) as outlined in Table 1.

Hybrid strategy: Porter (1980) suggests that a company or organization can have good competitiveness and performance if one chooses differentiation strategy or cost leadership strategy. If a company adopts combined both differentiation strategy and cost leadership strategy

Table 1: Industrial competition, dimension and indicators

Codes	Indicators
IC1	Intensity of industrial competition
IC11	Increase the number of higher education institutions
IC12	Competition to get competent lecturers (master and doctorate degrees)
IC13	High competition in tuition fees
IC14	High competition in promotional cost
IC2	Threat of substitutes
IC21	Threat from foreign institutions of higher education
IC22	Threat of private business enterprises
IC23	Threat of competency-based training centers
IC3	Power of the buyers
IC31	The bargaining power of students
IC32	The bargaining power of the student’s parents
IC33	The bargaining power of the job providers
IC34	The bargaining power of the government
IC4	Power of suppliers
IC41	Fulltime lecturers
IC42	Administrative staff
IC43	Part-time lecturers
IC5	Barriers to entry of new entrants
IC51	Policies and regulations of the Ministry of Education of Timor-Leste on the establishment of the new higher education institutions
IC52	Minimum capital required for establishing a new higher education institution
IC53	Government regulations and policies on the operations of a higher education institution
IC54	Duplicate courses from a college

then it will face stuck-in-the-middle which leads to reduce competitive advantage and performance (Kaliappen and Hilman 2017; Hansen *et al.*, 2015). Porter’s generic strategy has been criticized by many reserchaers and practioners due to in a highly competitive environment, uncertainty and rapid changes in customer demands, technology advancement and high imitation tendencies encourage companies to adopt the hybrid strategy (Baroto *et al.*, 2012; Anwar and Hasnu, 2016).

Hybrid strategies are generally modelled by combining several pure strategies to enhance corporate’s competitive advantage and business performance (Anwar and Hasnu, 2017; Gabrielsson *et al.*, 2016). This can be done by integrating several indicators of two or more variables to become a single variable in order to enhance the corporate’s competitive position and performance. The study of existing combination strategies focuses more on integration of differentiation and cost leadership strategies (Salavou, 2010; Hansen *et al.*, 2015). For example, Yuliansyah *et al.* (2016) tested hybrid strategy by integrating the differentiated strategy and cost leadership strategy into one variable in Indonesian banking services industry.

Nevertheless, there are studies that show that the combination of differentiation strategy and cost advantage strategy have a significant effect on industrial performance (Salavou, 2010; Gabrielsson *et al.*, 2016). In this research, hybrid strategy is done by integrating cost leadership strategy and service strategy.

Table 2: Hybrid strategy and its indicators

Codes	Indicators
H	Hybrid strategy
H ₁	Cost efficiency
H ₂	Low operational costs
H ₃	Low unit cost per student
H ₄	College has competent lecturers who promptly help students
H ₅	Have up-to-date facilities according to the needs of students
H ₆	Provide quality service to student as promised
H ₇	Willingness to help students
H ₈	College has lecturers who give personal attention to students

Indicators of both variables are adapted from Saldanha *et al.* (2018), Banker *et al.* (2014), Hansen *et al.* (2015), Ortega (2010) and Oyewobi *et al.* (2016) for cost advantage and Chui *et al.* (2016), Cardona *et al.* (2012), Abdullah (2006), Gruber *et al.* (2010) and Trivellas and Dargenidou (2009) as presented in Table 2.

Industrial performance: Industrial performance is generally used as a benchmark to determine the success of an industry in terms of competitiveness, growth and sustainability. A company or organization is said to perform well if it has the power of competitiveness, growth, continuity of operation and high profitability in an industrial environment with high intensity of industrial competition (Porter, 1980, 1985; Porter and M.E. 1991). Industrial performance is generally classified in financial performance and nonfinancial performance. Financial and nonfinancial performance is essential as a basis for managers to make decisions for investment (Ledon *et al.*, 2018).

Industrial performance is influenced by external factors and internal factors. External factors such as Porter's five forces negatively affect performance (Porter, 1980). According to the resource-based view theory if a company with good resources and capabilities can develop innovative capabilities to deliver products, services that are good, unique, difficult to imitate and valuable to customers, there by enhancing competitiveness and performance (Barney, 1991). Thus, the industry can defeat the competing industry by using its resources to create value that benefits the customer (Battagello *et al.*, 2016).

Financial performance is measured by ROI, profit margin. In contrast, non financial performance is measured by sales growth and successful sales of new products or services (Esmaeel *et al.*, 2018). Saldanha *et al.* (2018) measured financial performance using ROI, income growth and surplus growth while non financial performance was measured by student satisfaction, job provider satisfaction, drop out rate, absorption of graduates in employment, staff publication in international journals. In this study, financial and nonfinancial performance using indicators developed by Asif and Searcy (2014) and Saldanha *et al.* (2018) (Table 3).

Table 3: Industrial performance, dimension and indicators

IP1 Non financial performance
IP11 Student satisfaction
IP12 Student drop out rate
IP13 Employer satisfaction with graduates skills
IP14 Graduates employment rate
IP15 Student enrollment growth
IP16 Increasing research publications
IP17 Increasing faculty members attending conferences and seminars
IP18 Research impacts on community
IP19 Students counseling
IP2 Financial performance
IP21 Return on investment
IP22 Surplus growth
IP23 Total income growth

Conceptual framework and hypothesis

Conceptual framework: This study uses the five Porter's forces in explaining industrial competition. Based on the concept of Porter (1980), industrial competition is triggered by external factors such as competition rivalry, threat of substitutes, power of suppliers, power of buyers and threat of new entrants. These five forces are then developed in the context of higher education industry by Huang and Lee (2012), Mathooko and Ogutu (2015) and Saldanha *et al.* (2018). Dimensions and indicators for the framework of the research model as shown in Table 1. The industrial competition triggered by external factors has no significant effect on industrial performance.

To improve performance, the industry needs to adopt appropriate strategies to maintain high competitive advantage and performance. In this research, hybrid strategy was done by combining cost leadership strategy and service strategy indicators. The hybrid strategy in this study different from that developed by Salavou (2015), Hansen *et al.* (2015) and Gabrielsson *et al.* (2016) which is merely focused on the combination of differentiation strategies and cost leadership strategies. The hybrid strategy with a combination of cost leadership strategies and service strategies was adopted to address the demands of customers who want to access universities with a high quality at affordable prices. The dimensions and indicators of hybrid strategy in this study are presented in Table 2.

Industrial performance is influenced by external factors of industry (Porter, 1980, Metts, 2007, Huang and Lee, 2012; Kumar *et al.*, 2017) and corporate strategy (Kumlu, 2014; Louie and Kim, 2016; Oyewobi *et al.*, 2016a, b). Industrial performance is divided into financial and nonfinancial performance. This study uses indicators developed by Asif and Searcy (2014) and Saldanha *et al.* (2018) (Table 3). Financial performance is measured by 3 items and nonfinancial performance with 9 items (Table 3). The conceptual model of this study as shown in the Fig. 1.

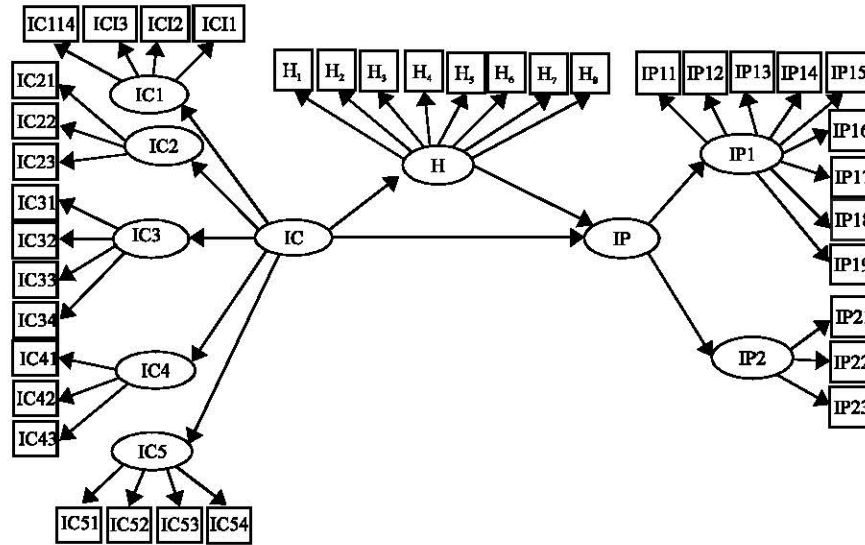


Fig. 1: Conceptual model of hybrid strategy as mediation for the relationship between industrial competition and performance

Hypothesis: This study uses five Porter forces as a factor that triggers industrial competition. Porter (1980) argues that industrial competition triggered by external factors negatively affects the Industry Performance (IP). Industrial competition causes many new players in a limited market segment, so, companies with limited resources to innovate and create new value for customers will lose their competitiveness and performance. Industrial competition has a negative or insignificant effect on industrial performance (Metts, 2007, Huang and Lee, 2012; Teller *et al.*, 2016; Saldanha *et al.*, 2018). Thus, industrial competition has an insignificant effect on industrial performance of higher education industry.

- H₁: industrial competition negative affects business performance

The hybrid strategy is a combination of cost leadership strategy and service strategy. Cost leadership strategies have a positive and significant impact on industrial performance (Banker *et al.*, 2014; Indounas, 2015). Similarly, cost leadership strategies play a role in mediating industrial competition and performance relationships. Service strategies have an effect on the performance of the higher education industry (Jain *et al.*, 2011; Kwak and Kim, 2016; Paul *et al.*, 2016). It also plays a full role in mediating the relationship between industrial competition and industry performance (Saldanha *et al.*, 2018). The hybrid strategy of cost leadership strategy and service strategy can play a significant role in mediating the relationship between industrial competition and industry performance relationships.

- H₂: hybrid strategy plays a significant role in mediating the relationship of industrial competition and business performance

MATERIALS AND METHODS

This study was conducted at 11 accredited higher education institutions in Timor-Leste. The primary sample unit of this research is the department. The total departments in 11 higher education institutions are 157. The questionnaire as a data collecting instrument is distributed and only 130 are filled and returned with an 83% response rate that is greater than the minimum response rate (80%) for a good survey from the Department/Faculty representing college (Fincham, 2008) or greater than the response rate of 67.29% used in a survey measuring the performance of Higher Education in Taiwan (Huang and Lee, 2012). A low response rate can provide a sample bias that may affect the results of the study (Fogliani, 1999; Sivo *et al.*, 2006).

Questionnaire was pre-tested and refined before using in order to avoid bias. Validity and reliability of the questionnaire was also tested by using Pearson correlation coefficient with minimum value >0.3. The questionnaire reliability was tested by using Cronbach alpha with minimum value ≥0.7 (Hair *et al.*, 2010; Ndubisi and Iftikhar, 2012). From this test, the Pearson correlation coefficient of all constructs and indicators were >0.3, as well as the Cronbach alpha value is >0.7. Thus, the instrument is valid and reliable for data collection.

The analytical tool used is Smart-PLS which has been frequently used in business and management research. Smart-PLS advantages are applicable for multi-variable analysis, small samples, reflective and formative indicators and no data normality tests (Hair *et al.*, 2017).

RESULTS AND DISCUSSION

Reliability and validity test of research instrument: In the research conducted factorial test to determine the loading factor of each indicator. The minimal loading factor is 0.7 but the loading factor for explorative research is the minimum value of 0.6 (Henseler *et al.*, 2016; Hair *et al.*, 2017). Based on the factorial analysis, indicators of IC13, H₂, H₃ and IP12 were dropped due its loading factors are below than 0.6. After that another test is performed and the result shows all indicators of the value above 0.6 (Fig. 2).

The reliability test results using Cronbach alpha, composite reliability, Average Variance Extracted (AVE) as in Table 4. The construct is said to be reliable if Cronbach alpha ≥ 0.7 , the composite reliability is ≥ 0.7 and the Average Variance Extracted (AVE) ≥ 0.5 (Abd Razak *et al.*, 2016; Hair *et al.*, 2017). Based on the results of the PLS test shows that the value of Cronbach alpha, composite reliability and AVE is greater than the minimum value (Table 4), so that, all constructs have good internal consistency to analyze the relationship between variables.

The validity test of this research uses the former-lacker and Heterotrait-Monotraits Ratio Test (HTMT) (Hair *et al.*, 2010). The results of the test indicate that all constructs in the model have values above on the minimum values of Fornell-Larscker Validity Test (Table 5) and values of Heterotrait-Monotraits Ratio Test (HTMT) of all constructs are below than 0.85 (Henseler *et al.*, 2015) (Table 6). Therefore, it is valid to further undertake hypothesis testing using path coefficient.

Hypothesis testing: Based on the results of the PLS test, the relationship between variables are exist and significant if the > 1.98 and the < 0.05 (Hair *et al.*, 2010). Based on the result of hypothesis test H₁ shows the value of $t = 1.232$ and $p < 0.219$ (Table 7) which means that industrial competition triggered by external factors does not significantly affect the industry performance. Thus, H₁ is rejected.

Mediation test: The result of indirect effect test indicates that the value of $t = 4.374$ and $p = 0.000$ (Table 8). The t-value of the Smart-PLS test is greater than $T_{0.05} = 1.98$ indicating that the hybrid strategy is fully mediating the relationship between industrial competition and performance. Therefore, the Hypothesis H₂ is acceptable (Fig. 3).

This study shows that industrial competition triggered by external factors such as the intensity of competition, threat of substitute, power of buyers, power of suppliers and threat of new entrants is not significant

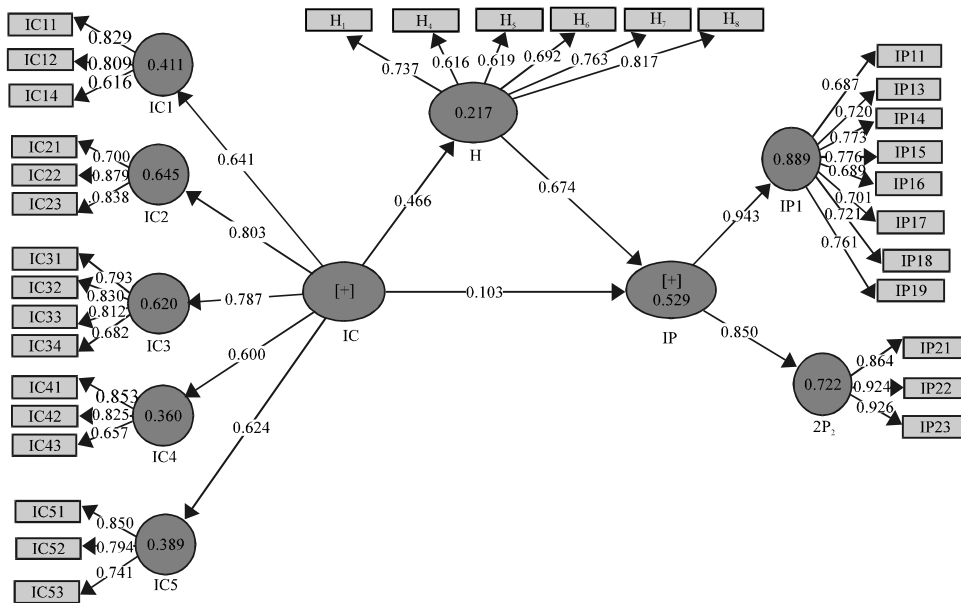


Fig. 2: Path analysis of research model

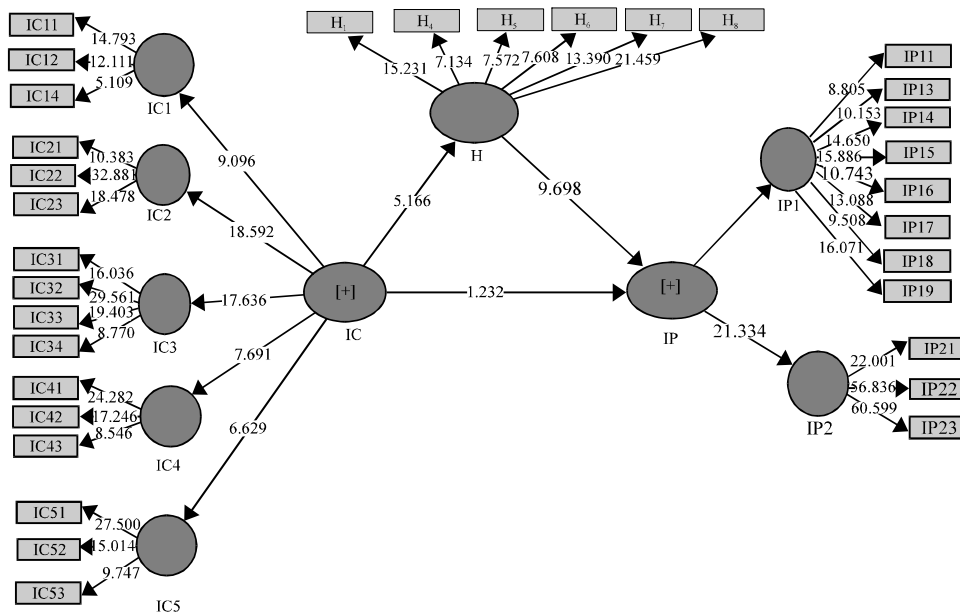


Fig. 3: The significant relation test of research model

Table 4: Results of construct reliability test

Parameters	Cronbach's Alpha	Composite reliability	Average Variance Extracted (AVE)
H	0.804	0.859	0.506
IC			
IC1	0.635	0.799	0.574
IC2	0.731	0.849	0.655
IC3	0.785	0.862	0.611
IC4	0.681	0.825	0.614
IC5	0.711	0.838	0.634
IP			
IP1	0.874	0.901	0.532
IP2	0.889	0.931	0.819

Table 5: Fornell-Larscker validity test

Parameters	H	IC1	IC2	IC3	IC4	IC5	IP1	IP2
H	0.7							
IC1	0.2	0.8						
IC2	0.3	0.5	0.8					
IC3	0.4	0.4	0.5	0.8				
IC4	0.3	0.2	0.3	0.4	0.8			
IC5	0.3	0.3	0.4	0.3	0.3	0.8		
IP1	0.7	0.1	0.3	0.3	0.3	0.2	0.7	
IP2	0.5	0.2	0.3	0.3	0.3	0.2	0.6	0.9

Table 6: Heterotrait-Monotrait Ratio Test (HTMT)

Parameters	H	IC1	IC2	IC3	IC4	IC5	IP1
H							
IC1	0.3						
IC2	0.4	0.8					
IC3	0.5	0.6	0.7				
IC4	0.4	0.3	0.4	0.6			
IC5	0.4	0.4	0.7	0.4	0.4		
IP1	0.9	0.3	0.4	0.4	0.3	0.2	
IP2	0.6	0.3	0.4	0.3	0.3	0.3	0.7

influencing industrial performance because in high industrial competition, the higher education industry can

undertake cost efficiency, innovation and improved services in order to maintain high industrial performance. The results of this study are in line with the previous studies such as Huang and Lee (2012), Saldanha *et al.* (2018), Mia and Winata (2014) and Obembe and Soetan (2015). Nevertheless, the results of this study are asymmetric to Porter's concept of the five external forces that affect competitive advantage and industrial performance (Metts, 2007; Patiar and Mia, 2009; Lee and Yang, 2011; Assaf and Cvelbar, 2011; Huang *et al.*, 2012; Fosu, 2013 and Teller *et al.*, 2016). The difference of study outcomes could be due to the difference of types, sizes, locations, environments and indicators used in the studies. This may also be due to differences in preference between stakeholders (Gruber *et al.*, 2010), so that, quality service indicators should be formulated in accordance with the type of industry and local stakeholder demands (Farooq *et al.*, 2018).

The results of this study also show that hybrid strategy plays a full role in mediating the relationship between industrial competition and performance because by undertaking cost efficiencies leads to the higher education industry can set a cheaper price, so that, it can attract customers better. This is further supported by quality service strategy which will lead to satisfy customers then they can help to transmit it to the other customers through word-of-mouth promotion. In developing countries, the purchasing power of most people is low but they expect to have products and

Table 7: Path coefficient test

Variables	Original sample (O)	Sample Mean (M)	SD	t-Statistics (O/SD)	p-values
H-IP	0.674	0.673	0.069	9.698	0.000
IC-H	0.466	0.499	0.090	5.166	0.000
IC-IC1	0.641	0.646	0.070	9.096	0.000
IC-IC2	0.803	0.799	0.043	18.592	0.000
IC-IC3	0.787	0.786	0.045	17.636	0.000
IC-IC4	0.600	0.604	0.078	7.691	0.000
IC-IC5	0.624	0.614	0.094	6.629	0.000
IC-IP	0.103	0.122	0.083	1.232	0.219
IP-IP1	0.943	0.940	0.013	73.996	0.000
IP-IP2	0.850	0.846	0.040	21.334	0.000

Table 8: Result of indirect test

Variables	Original sample (O)	Sample Mean (M)	SD (STDEV)	T statistics (O/STDEV)	p-values
IC-IP	0.314	0.336	0.072	4.374	0.000

services with reasonable quality and low prices. In the context of hybrid strategy, the results of this study are symmetrical with research of Claver-Cortes *et al.* (2012), Salavou (2015) and Gabrielsson *et al.* (2016), although, these studies have different variables and indicators. The results of this study also confirms the study of Saldanha *et al.* (2018) who found that cost leadership strategy and service strategy simultaneously play significant role in mediating the relationship between industrial competition and performance. Nevertheless, the results of this study are asymmetric to the research of Hansen *et al.* (2015) and Yuliansyah *et al.* (2016). The different results might be due to the different types, sizes, environments and indicators used in the study.

CONCLUSION

This study aims to examine the influence of industrial competition triggered by external factors on the performance of the higher education industry in Timor-Leste. The results of this study indicate that industrial competition does not significantly affect the performance of the higher education industry in Timor-Leste. This study found that the rivalry of the higher education industry triggered by the increase number of the higher education industry, the competition for master’s and doctor’s degree lectures, tuition fees and promotional cost that trigger industrial competition does not significantly affect the financial and non-financial performance of the higher education industry. The results of this study are in line with several previous studies that examined external factors as a trigger for the decline of industrial performance (Huang and Lee, 2012; Teller *et al.*, 2016; Saldanha *et al.*, 2018) but in contrast to Mia and Winata (2014) and Obembe and Soetan (2015).

The study also found that hybrid strategies that combine cost leadership strategies and service strategy focus play a full role in mediating the relationship between the performances of the higher education industry. Thus,

the higher education industry in Timor-Leste can adopt hybrid strategy (cost leadership strategy and service strategy) in developing quality and performance of the higher education industry in Timor-Leste.

This research contributes to enriching business strategies based on hybrid strategy in the context of the higher education industry which until now still does not exist, and to be a debate among researchers. The results of this study also contributed in providing some indicators in industrial competition, hybrid strategy and the performance of the higher education industry. The result of this research can be used to formulate policies, regulations and strategies to enhance quality and performance of the higher education industry. The results of the study can provide information to government and leaders of higher education industry in Timor-Leste to adopt hybrid strategy based on combined cost leadership strategies and service strategies.

REFERENCES

Abdullah, F., 2006. Measuring service quality in higher education: HEdPERF versus SERVPERF. *Market. Intell. Plann.*, 24: 31-47.

Anwar, J. and S.A.F. Hasmu, 2016. Business strategy and firm performance: A multi-industry analysis. *J. Strategy Manage.*, 9: 361-382.

Anwar, J. and S.A.F. Hasmu, 2017. Strategy-performance relationships: A comparative analysis of pure, hybrid and reactor strategies. *J. Adv. Manag. Res.*, 14: 446-465.

Asif, M. and C. Searcy, 2014. A composite index for measuring performance in higher education institutions. *Intl. J. Qual. Reliab. Manag.*, 31: 983-1001.

Assaf, A. and K.L. Cvelbar, 2011. Privatization, market competition, international attractiveness, management tenure and hotel performance: Evidence from Slovenia. *Intl. J. Hospitality Manag.*, 30: 391-397.

- Banker, D.R., R. Mashruwala and A. Tripathy, 2014. Does a differentiation strategy lead to more sustainable financial performance than a cost leadership strategy?. *Manage. Decis.*, 52: 872-896.
- Barney, J.B., 1991. Firm resources and sustained competitive advantage. *J. Manage.*, 17: 99-120.
- Baroto, M.B., M.M.B. Abdullah and H.L. Wan, 2012. Hybrid strategy: A new strategy for competitive advantage. *Int. J. Bus. Manage.*, 7: 120-133.
- Battagello, F.M., L. Cricelli and M. Grimaldi, 2016. Benchmarking strategic resources and business performance via an open framework. *Intl. J. Productivity Perform. Manag.*, 65: 324-350.
- Cardona, M.M. and J.J. Bravo, 2012. Service quality perceptions in higher education institutions: The case of a Colombian University. *Estudios Gerenciales*, 28: 23-29.
- Chui, T.B., M.S.B. Ahmad, F.B.A. Bassim and N.B.A. Zaimi, 2016. Evaluation of service quality of private higher education using service improvement matrix. *Procedia Soc. Behav. Sci.*, 224: 132-140.
- Claver-Cortes, E., E.M. Pertusa-Ortega and J.F. Molina-Azorin, 2012. Characteristics of organizational structure relating to hybrid competitive strategy: Implications for performance. *J. Bus. Res.*, 65: 993-1002.
- Du, K., 2018. The impact of multi-channel and multi-product strategies on firms risk-return performance. *Decis. Support Syst.*, 109: 27-38.
- Esmael, R.I., N. Zakuan, N.M. Jamal and H. Taherdoost, 2018. Understanding of business performance from the perspective of manufacturing strategies: Fit manufacturing and overall equipment effectiveness. *Procedia Manuf.*, 22: 998-1006.
- Farooq, M.S., M. Salam, A. Fayolle, N. Jaafar and K. Ayupp, 2018. Impact of service quality on customer satisfaction in Malaysia airlines: A PLS-SEM approach. *J. Air Transport Manag.*, 67: 169-180.
- Fincham, J.E., 2008. Response rates and responsiveness for surveys, standards and the journal. *American J. Pharm. Educ.*, 72: 1-3.
- Fosu, S., 2013. Capital structure, product market competition and firm performance: Evidence from South Africa. *Q. Rev. Econ. Finance*, 53: 140-151.
- Furrer, O., D. Sudharshan, H. Thomas and T.M. Alexandre, 2008. Resource configurations, generic strategies and firm performance: Exploring the parallels between resource-based and competitive strategy theories in a new industry. *J. Strategy Manag.*, 1: 15-40.
- Gabrielsson, M., T. Seppala and P. Gabrielsson, 2016. Realizing a hybrid competitive strategy and achieving superior financial performance while internationalizing in the high-technology market. *Ind. Marketing Manag.*, 54: 141-153.
- Gonzalez-Rodriguez, M.R., J.L. Jimenez-Caballero, R.C. Martin-Samper, M.A. Koseoglu and F. Okumus, 2018. Revisiting the link between business strategy and performance: Evidence from hotels. *Intl. J. Hospitality Manag.*, 72: 21-31.
- Gruber, T., S. Fub, R. Voss and G.M. Zikuda, 2010. Examining student satisfaction with higher education services: Using a new measurement tool. *Int. J. Public Sector Manage.*, 23: 105-123.
- Hair, J., C.L. Hollingsworth, A.B. Randolph and A.Y.L. Chong, 2017. An updated and expanded assessment of PLS-SEM in information systems research. *Ind. Manag. Data Syst.*, 117: 442-458.
- Hair, J.F., W.C. Black, B.J. Babin and R.E. Anderson, 2010. *Multivariate Data Analysis*. 7th Edn., Prentice Hall, New Jersey, USA., ISBN:9780138132316, Pages: 785.
- Hansen, E., E. Nybakk and R. Panwar, 2015. Pure versus hybrid competitive strategies in the forest sector: Performance implications. *For. Policy Econ.*, 54: 51-57.
- Huang, H.I. and C.F. Lee, 2012. Strategic management for competitive advantage: A case study of higher technical and vocational education in Taiwan. *J. Higher Educ. Policy Manag.*, 34: 611-628.
- Indounas, K., 2015. The adoption of strategic pricing by industrial service firms. *J. Bus. Ind. Marketing*, 30: 521-535.
- Jain, R., G. Sinha and S. Sahney, 2011. Conceptualizing service quality in higher education. *Asian J. Qual.*, 12: 296-314.
- Kaliappen, N. and H. Hilman, 2017. Competitive strategies, market orientation types and innovation strategies: Finding the strategic fit. *World J. Entrepreneurship Manag. Sustainable Dev.*, 13: 257-261.
- Kumar, A., D.E. Cantor, C.M. Grimm and C. Hofer, 2017. Environmental management rivalry and firm performance. *J. Strategy Manag.*, 10: 227-247.
- Kumlu, O., 2014. The effect of intangible resources and competitive strategies on the export performance of small and medium sized enterprises. *Procedia Social Behav. Sci.*, 150: 24-34.
- Kwak, K. and W. Kim, 2016. Effect of service integration strategy on industrial firm performance. *J. Serv. Manag.*, 27: 391-430.
- Ledon, R.A., E.L.G. Darkys, V.P. Garrido and P.B. Escobar, 2018. A meta-analytic study of the impact of lean production on business performance. *Intl. J. Prod. Econ.*, 200: 83-102.

- Lee, C.L. and H.J. Yang, 2011. Organization structure, competition and performance measurement systems and their joint effects on performance. *Manag.Accounting Res.*, 22: 84-104.
- Mathooko, F.M. and M. Ogutu, 2015. Porters five competitive forces framework and other factors that influence the choice of response strategies adopted by public universities in Kenya. *Intl. J. Educ. Manag.*, 29: 334-354.
- Metts, G.A., 2007. Measuring the effectiveness of managerial action in SMEs: An empirical analysis of managements response to industry competitive forces. *Manag. Res. News*, 30: 892-914.
- Mia, L. and L. Winata, 2014. Manufacturing strategy and organisational performance: The role of competition and MAS information. *J. Accounting Organizational Change*, 10: 83-115.
- Ndubisi, O.N. and K. Ifikhar, 2012. Relationship between entrepreneurship, innovation and performance: Comparing small and medium-size enterprises. *J. Res. Marketing Entrepreneurship*, 14: 214-236.
- Obembe, O.B. and R.O. Soetan, 2015. Competition, corporate governance and corporate performance: Substitutes or complements? Empirical evidence from Nigeria. *Afr. J. Econ. Manag. Stud.*, 6: 251-271.
- Ortega, M.J.R., 2010. Competitive strategies and firm performance: Technological capabilities' moderating roles. *J. Bus. Res.*, 63: 1273-1281.
- Oyewobi, L.O., A. Windapo and J.O.B. Rotimi, 2016a. Relationship between decision-making style, competitive strategies and organisational performance among construction organisations. *J. Eng. Des. Technol.*, 14: 713-738.
- Oyewobi, L.O., A.O. Windapo, J.O.B. Rotimi and R.A. Jimoh, 2016b. Relationship between competitive strategy and construction organisation performance: The moderating role of organisational characteristics. *Manag. Decis.*, 54: 2340-2366.
- Patiar, A. and L. Mia, 2009. Transformational leadership style, market competition and departmental performance: Evidence from luxury hotels in Australia. *Int. J. Hospitality Manage.*, 28: 254-262.
- Paul, J., A. Mittal and G. Srivastav, 2016. Impact of service quality on customer satisfaction in private and public sector banks. *Intl. J. Bank Marketing*, 34: 606-622.
- Porter, M.E., 1980. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Free Press, New York, ISBN: 9780029253601, Pages: 396.
- Porter, M.E., 1985. *Competitive Advantage-Creating and Sustaining Superior Performance*. The Free Press, New York, USA., ISBN:9780029250907, Pages: 557.
- Porter, M.E., 1991. Towards a dynamic theory of strategy. *Strategic Manage. J.*, 12: 95-117.
- Salavou, H., 2010. Strategy types of service firms: Evidence from Greece. *Manag. Decis.*, 48: 1033-1047.
- Salavou, H.E., 2013. Hybrid strategies in Greece: A pleasant surprise. *Eur. Bus. Rev.*, 25: 301-314.
- Salavou, H.E., 2015. Competitive strategies and their shift to the future. *Eur. Bus. Rev.*, 27: 80-99.
- Saldanha, E.D.S., I.K. Rahyuda, Y.N.N. Kerti and I.P.G. Sukaatmadja, 2018. The role of business strategy in mediating the relationship between industrial competition and performances. *Eur. J. Bus. Manag.*, 10: 152-172.
- Sivo, S.A., C. Saunders, Q. Chang and J.J. Jiang, 2006. How low should you go? Low response rates and the validity of inference in IS questionnaire research. *J. Assoc. Info.Syst.*, 7: 351-414.
- Teller, C., A. Alexander and A. Floh, 2016. The impact of competition and cooperation on the performance of a retail agglomeration and its stores. *Ind. Marketing Manag.*, 52: 6-17.
- Trivellas, P. and D. Dargenidou, 2009. Organisational culture, job satisfaction and higher education service quality: The case of technological educational institute of Larissa. *TQM J.*, 21: 382-399.
- Walsh, P.R. and S.M. Sanderson, 2008. Hybrid strategic thinking in deregulated retail energy markets. *Intl. J. Energy Sect. Manag.*, 2: 218-230.
- Yuliansyah, Y., H.G. Rammal and E.L. Rose, 2016. Business strategy and performance in Indonesias service sector. *J. Asia Bus. Stud.*, 10: 164-182.
- Yuliansyah, Y., Y. Yuliansyah, B. Gurd, N. Mohamed and N. Mohamed, 2017. The significant of business strategy in improving organizational performance. *Humanomics*, 33: 56-74.