Benefits of the Case Study Method for Teaching Students with Business and Economics Majors in Universities and Colleges

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Abstract

The case method in teaching business and economics students at universities and colleges is becoming among hot academic concerns. Several innovative teaching methods have been discussed, and among them, the case study method has been used and applied effectively in classrooms. The paper used qualitative analysis with analytical, explanatory, and inductive approaches. This study will analyze the benefits and conditions of applying two modeling case study methods in teaching. The case study method can transfer global values from global cases to local firms. Case study methods have other merits such as Attractiveness, Up to date calculation, Typical and representative, Suitable for learning based on a full background knowledge system sound for learners to understand and remember theoretical knowledge. Finally, the paper discusses some educational issues for schools, such as positive teaching methods.

Keywords: case study method; teaching quality improvement; universities and colleges

JEL: A10, A20, A23

1. Introduction

As the business world evolves, changes are required in business networks and people's skillsets to best deal with future uncertainties (Weenk, 2019). Many university teachers and lecturers in Bahrain and Vietnam have applied case study methods to teach and train students with practical solutions. Modern teaching methods at the university level today are being implemented to promote the positivity of the cognitive process and technologize teaching methods. These methods require lecturers to impart knowledge to students and teach students how to create and find new knowledge by themselves. Lecturers are not mere information providers but people who apply modern technologies and methods to actively guide students in self-directed learning and research through textbooks, documents, and problems in life.

Educational programs need to meet the challenges of accelerating change and complexity in today's business and technology environments. Graduating students who are well-equipped with holistic business and economics skills such as problem-solving, critical thinking, and creativity are essential to meet the market needs the expectations of their employers. Experiential learning and internships provide opportunities to develop such skills and address real problems in a business context (Brymer and Newman, 2016). Effective methods for experiential learning such as case analysis enable students to grasp relevant experience, reflect effectively, and transform knowledge, supplemented by conceptual frameworks (Ozelkan and Rajamani, 2006; Weenk, 2019).

This paper analyzes two modeling-based case study methods and discusses teaching goals, conditions, aspects, and benefits to improve teaching quality. The article is organized as follows: the introduction, the research issues, literature review, and methodology. Next, the research methods, data, and primary findings are covered. Then, the paper provides discussion, conclusion, and suggestions.

2. Literature review

The case study is a method and activity of in-depth analysis of a specific situation, thing, or event, different from large-scale surveys and statistics. Over the years, in business and management schools, case teaching has been used quite widely, providing students with actual context and increasing their problem-solving skills. Several studies have been conducted on the role of case studies in teaching business and economic courses, e.g., Gerring (2004), Al-Shammari (2005), Lapoule (2018), Corman and Beck (2019), Ngu et al. (2021), Huong et al. (2021), and Kien et al. (2021), and Al-Shammari (2022)

Gerring (2004) argued that cases in the teaching process could understand different situations in different manners. Al-Shammari (2005) surveyed undergraduate business students in a business process re-engineering (BPR) course. The study found that case analysis helped students solve business problems, make connections from one part of the course to another, sort relevant from irrelevant material, and assume greater responsibility for personal learning and learning the cross-functionality of business. Lapoule (2018) explored the extent to which the pedagogical case study method can bridge the gap between teaching and research. Based on an initial survey on 1,057 university academics, the results revealed the existence of five major groups of academics with varying degrees of the link between the two topics and demonstrate the variations in the contributions that pedagogical case studies contribute to classroom teaching and scholarly research for each subgroup.

Corman and Beck (2019) indicated that project-based prompts, problem-based prompts, and heuristics used in asynchronous online discussions could help promote creativity. Hai et al. (2021) argued that it is better to change teaching methods to enhance creativity for students at schools, for instance, with the management case study method. Huong et al. (2021) added that innovative approaches are needed in teaching at universities and colleges. Hoa et al. (2021) introduced an economic case study as an example in this study. Besides, Ngu et al. (2021) mentioned that using English as a foreign language in university case studies is encouraged more. This note was also raised by Huong et al. (2021) and Kien et al. (2021). Al-Shammari

(2022) investigated students' learning experience in a supply chain management (SCM) course at a university in Bahrain. The study found that the case study helped improve team-building and interpersonal skills, sharing ideas with colleagues, learning the cross-functionality of business, and being emotionally engaged in learning.

3. Methodology and data

This paper will present an example of a case study and case teaching methods. The used case was a combination of quantitative and qualitative methods, including synthesis, explanation, and inductive approaches. With reliable internet data, this study used OLS regression with supported EViews to establish correlation among macroeconomic factors by using an econometric model to analyze the impacts of macroeconomic factors in Vietnam such as GDP growth, inflation, interest rate, the exchange rate on Military Bank (MB) stock price.

4. Main findings

4.1 Case Study # 1: Decision Analysis of an Industrial Facility Location

This case uses a mathematical Linear Programming (LP) model to analyze industrial facility location alternatives. A steel bar stock wholesaling company specializing in imported assorted steel stock must soon add a new warehouse to supply an increased demand from its customers. The company now has two warehouses providing four clusters of customers. L3 and L4 have been proposed as two location alternatives, each with monthly capacities of 12,000 pounds. The actual monthly capacities for existing Warehouses 1 and 2, the minimum demand for each customer cluster, A, B, C, and D, and the transportation and handling costs per pound for supplying the needs are shown in Table 1. If only one warehouse is built, which location (L3 or L4) will have the lowest monthly transportation and handling costs?

Table 1: Capacities, Demands, and Transportation Casts

Warehouse	***Customer Cluster***				***Monthly Capacity (Pounds)***
	A	B	C	D	
Warehouse 1	*$ 0.10*	*$ 0.10*	*$ 0.15*	*$ 0.20*	*12.00*
Warehouse 2	*0.10*	*0.10*	*0.10*	*0.20*	*12.00*
Proposed Location 3	*0.15*	*0.15*	*0.10*	*0.10*	*12.00*
Proposed Location 4	*0.20*	*0.10*	*0.15*	*0.15*	*12.00*
Monthly Customer Demand (Pounds)	*10.00*	*8.00*	*12.00*	*6.00*	

A. Assume that the proposed Warehouse L3 (first alternative) will be combined with existing Warehouses 1 and 2 and formulate a linear programming model.

- Define the decision variables:
  X1 = number of pounds of steel to be shipped from warehouse / to Customer Cluster A per month.
  X2 - Number of pounds of steel to be shipped from the warehouse to Customer Cluster B per month.

X12 = number of pounds of steel to be shipped from Warehouse L3 to Customer Cluster D per month.

- Formulate the objective function
  Minimize Z = .10X1 + .10X2 + .15X3 + .20X4 + .10X5+ .10X6 + .10X7 + .20X8 + .15X9+ .15X10 + .10X11 + ,10X12

- Formulate the constraints

XI + X2 + X3 + X4 ≤ 12.000	Warehouse 1 Capacity
X5 + X6 + X7 + X8 ≤ 12.000	Warehouse 2 Capacity
X9 + X10 + X11 + X12 ≤ 12,000	Warehouse 2 Capacity
X/ + XS + X9 2 ≥ 10,000	Customer Cluster A Requirements
X2 + X6 + X10 2 ≥ 8.000	Customer Cluster B Requirements
X3 - X7 + X12 2 ≥ 12,000	Customer Cluster C Requirements
X4 + X8 + X12 2 ≥ 6,000	Customer Caster D Requirements

- Solve the LP model using the computer. The results are:

X1 = 10,000	X2 = 2,000	X3 = 0
X4 = 0	X5 = 0	X6 = 6,000
X7 = 12,000	X8 = 0	X9 = 0
X10 = 6,000	X11 = 0	X12 = 6,000

  Z = $ 3,600

B. Assume that proposed warehouse L4 will be combined with existing Warehouses 1 and 2 and formulate the problem:

- The objective junction is
  Minimize Z = .10X1 + .10X2 + .15X3 + .20X4 + .10X5+ .10X6 + .10X7 + .20X8 + .20X9 + .10X10 + .15X11 + .15X12

- The constraints will stay the same as in No.3 above.

- The solution to this new LP model is:
  X1 = 10,000
  X4 = 0 X7 = 12,000
  X10 = 6,000
  X2 = 2,000
  X3 = 0
  X12 - 6,000
  Z = $ 6,000

By comparing the results given in A and those in B, one can notice that Warehouse location L3 is preferred to warehouse location LA. The total monthly costs for L3 ($3,600) are less than for LA ($ 6,000)

4.2 Case Study # 2: *Enhancing Management Compatibility of the MB Bank in Vietnam*

Military Bank (MB) has made very positive contributions to the overall achievements of the banking industry, deserving of its position as one of the leading joint-stock commercial banks of the Vietnamese banking system. It contributes to helping State Bank stabilize the market and successfully implements monetary policy. This case will build an econometric model to analyze bank performance factors and propose solutions. It establishes a correlation among macroeconomic factors using an econometric model to study the impacts of macroeconomic factors in Vietnam such as GDP growth, inflation, interest rate, and the exchange rate on Military Bank (MB) and stock price. Chart 1 shows us that Y has a positive correlation with GDP growth. Next, based on scatter chart 2, Y (MB stock price) has a slightly negative correlation with inflation (CPI). Chart 3 shows that MB stock price (Y) and VNIndex have positive correlations.

Chart 1: MB stock price (Y) vs. GDP growth in Vietnam (G)

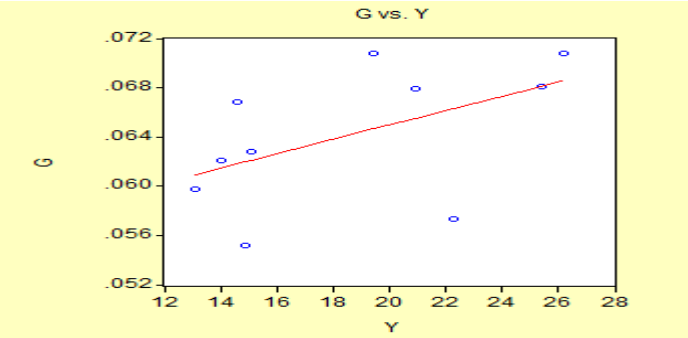

Chart 2: MB stock price (Y) vs. Inflation (CPI)

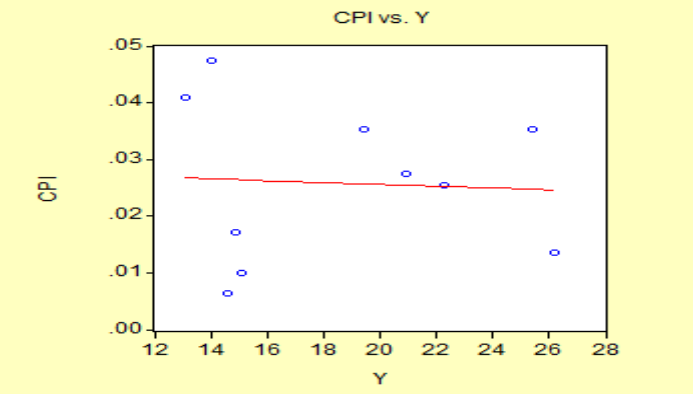

Chart 3: Y vs. VNIndex

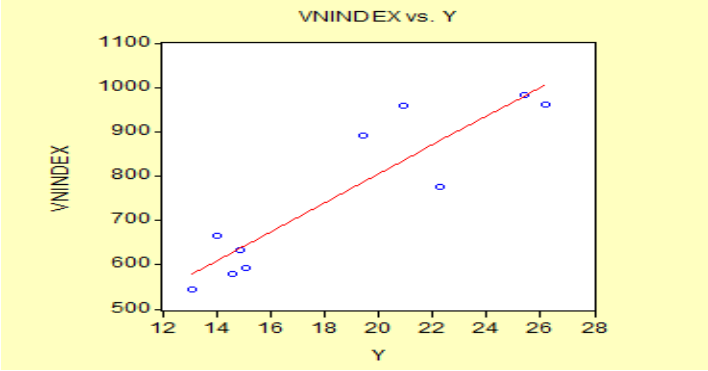

Table 2 shows the covariance matrix among eight (8) macroeconomic variables. MB stock price (Y) negatively correlates with the risk-free rate and lending rate but positively correlates with the exchange rate (EX. Rate) and GDP growth. Hence, an increase in inflation may slightly negatively impact MB stock price.

Table 2: Covariance matrix for seven macroeconomic variables

Covariance Matrix								
	Y	G	CPI	VNINDEX	R	RF	EX_RATE	SP500
Y	21.70522	0.012693	-0.003581	708.1502	-0.018794	-0.033671	1592.783	1170.402
G	0.012693	2.77E-05	-3.50E-06	0.575578	-1.49E-05	-3.33E-05	1.720538	0.934488
CPI	-0.003581	-3.50E-06	0.000173	0.322068	-2.10E-05	-2.79E-05	0.627614	0.676458
VNINDEX	708.1502	0.575578	0.322068	28031.78	-0.534085	-1.418033	75361.46	46087.69
R	-0.018794	-1.49E-05	-2.10E-05	-0.534085	5.25E-05	2.93E-05	-0.648952	-0.758612
RF	-0.033671	-3.33E-05	-2.79E-05	-1.418033	2.93E-05	0.000178	-4.028085	-2.529699
EX_RATE	1592.783	1.720538	0.627614	75361.46	-0.648952	-4.028085	335144.0	122334.5
SP500	1170.402	0.934488	0.676458	46087.69	-0.758612	-2.529699	122334.5	78286.05

4.3 Regression model and main findings

This section will find the relationship between eight macroeconomic factors and public debt.

Scenario 1- Regression model with two variables. Running EViews gives these results:

Dependent Variable: Y
Method: Least Squares
Date: 02/01/20 Time: 17:55
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
G	456.6081	286.3885	1.594366	0.1549
CPI	-11.41782	114.4604	-0.099753	0.9233
C	-10.40549	18.81946	-0.552911	0.5975

R-squared	0.268899	Mean dependent var	18.59500
Adjusted R-squared	0.060013	S.D. dependent var	4.910898
S.E. of regression	4.761258	Akaike info criterion	6.202226
Sum squared resid	158.6871	Schwarz criterion	6.293002
Log likelihood	-28.01113	F-statistic	1.287302
Durbin-Watson stat	1.322629	Prob(F-statistic)	0.334134

Therefore, Y = 456.6 * g - 11.4*CPI – 10.4, R^2 = 0.26, SER = 4.76

(286.3) (114.4) (18.8)

Hence, this equation shows that MB stock price positively correlates with GDP growth and negatively correlates with inflation in Vietnam. It is highly positively affected by the GDP growth rate.

Scenario 2- regression model with six macro variables. Running EViews gives these results:

Dependent Variable: Y
Method: Least Squares
Date: 02/01/20 Time: 17:57
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
G	-199.8986	160.6465	-1.244339	0.3017
CPI	-96.07464	48.50986	-1.980518	0.1420
R	-152.8409	102.6482	-1.488979	0.2332
VNINDEX	0.031299	0.007341	4.263925	0.0237
RF	2.362815	59.08468	0.039990	0.9706
EX_RATE	-0.001347	0.001787	-0.753775	0.5057
C	55.55647	35.32038	1.572929	0.2138

R-squared	0.949955	Mean dependent var	18.59500
Adjusted R-squared	0.849866	S.D. dependent var	4.910898
S.E. of regression	1.902832	Akaike info criterion	4.320590
Sum squared resid	10.86230	Schwarz criterion	4.532400
Log likelihood	-14.60295	F-statistic	9.491077
Durbin-Watson stat	2.727074	Prob(F-statistic)	0.046091

Y = -199.8*G – 96.07*CPI - 152.8*R + 0.03* VNINDEX + 2.36* Rf - 0.001*EX_RATE +55.5,

R^2 = 0.94, SER =1.9

(160.6) (48.5) (102.6) (0.007) (59.1) (0.001)

Step 3: Case questions

Question 1: Discussing factors that affect bank performance?

Question 2: Propose solutions to improve better bank management?

4.4 Goals and Conditions for Applying the Case Study Method

The goals and requirements for using the case study approach are summarized in Table 3.

Table 3: Goals and conditions of Using the Case Study Method

Goals	**Conditions**
1. Maximize students' ability, creativity, and independence.	In the teaching stage, lecturers need to focus on and support students in promoting their psychological functions, independence, and creative thinking abilities by creating conditions for students to discuss and present their ideas, views, and thoughts on political, economic, and social issues. Guide and explain to students to clearly understand the process of knowledge reproduction and the teaching methods of lecturers. From there, orient students to apply

	themselves in the learning and research process to meet the requirements of the lecturers.
2. Improve students' capabilities of doing research.	Cooperation between schools and research institutes, firms, and scholars to increase scientific research products for students.
3. Improve analytical and writing skills and presentation skills for students.	Increase time for discussion in groups and presentations, invite experienced managers and researchers to join in discussion with students
4. Maximize the effectiveness of the case study method for students.	Investment to improve facilities and school infrastructure for studying, researching as well as for physical activities of students Encourage lecturers to use software and modern technological means for teaching. Also, we need to use objective evidence and information and data in the case study method.

Source: Developed by the authors

4.5 Teaching Aspects of the Case-based Modeling Approach

This subsection explains the approach adopted for teaching modeling as a case study problem-based approach. The teaching approach used involves the following major groups of aspects:

- Demonstration aspects
    - Tell students what they will learn and how to help them solve problems.
    - Discuss the fundamental theoretical underpinnings of the problem-based learning process.
    - Explain the components of a model, assumptions to be met, and the types of problems it can solve. Components of mathematical models are decision variables, objective functions, and constraints.
    - Illustrate an introductory problem in the class to enhance students' understanding of the discussed mathematical model.
- Experimental aspects
    - Provide an opportunity for students to practice and experiment formulation and problem-solving of real-world cases by themselves. These cases are real-world applications taken primarily from recent Journals such as Management Science, Decision Sciences, and Interphases.

  - Emphasize problem formulation as one of the essential problem-solving steps. Allow students ample time to formulate problems and look at and analyze the results. Students who cannot correctly design mathematical models cannot possibly solve them.
  - Students can use some typical quantitative analysis software packages in a computer lab. Some packages are command-driven, such as LINDO and Lotus 1-2-3, whereas others are menu-driven, such as QSB, OR COURSEWARE, and MANAGEMENT SCIENTISTS.

- Project Aspects
  - Divide the class into study groups of three to four students and introduce a project assignment to each group. Students can analyze a real-life case (in public or private organizations), formulate the problem, and recommend the best possible solution(s).
  - Using real-world project works illustrates that students may reencounter problems of this type after they finish with the class. Teaching students only concepts, methods, and problem-solving techniques do not guarantee successful teaching in the absence of real-world problem-based learning.
  - Request study groups to hand in their projects by a designated date. Each group must deliver an oral presentation in the class on the formulation of the model and their significant results and suggestions.

- Practical Aspects
  - The inadequate algebraic and statistical knowledge possessed by some students sometimes slows down the teaching process in the class.
  - The limited number of PC terminals in the computer lab makes it very difficult to give each student a chance to work individually on a computer terminal.
  - Students who face personal, emotional, or medical problems may fail to submit assignments and group projects on time.

4.6 Benefits of using the case study method

Using the case study methods brought at least the following benefits:

- Improve students' creativity and independence in giving personal comments and analytical ideas.
- Improve students' ability to make suggestions and problems solving.
- Stimulate learners' participation in real problems to study more effectively through group discussion situations.

- Learners can use evidence, data, and information to answer case questions in a situation.
- Help students brainstorm and have better qualitative analytical skills.
- Help students make estimation and quantitative models to answer practical business problems.
- Help learners to discuss, share experience, and propose economic policies.
- Provide high application and practical features.
- Transfer global values from global cases to local firms.
- Attractiveness and suitability are based on a complete knowledge system and for learners to understand and remember theoretical knowledge.

5. Discussion

Through the regression equation with the above seven macroeconomic variables, this research paper used updated data from 2014-2019 to analyze the regression equation via EViews; Therefore, we see the impacts of 6 macro factors, with the new variable: exchange rate USD/VND (EX_RATE), the above equation shows that MB stock price (Y) has a negative correlation with GDP growth, inflation, exchange rate, and lending rate, whereas it has a positive correlation with risk-free rate, VNINDEX, and exchange rate. We also recognize that GDP growth and lending rate, then CPI has the highest impact on MB stock price, while exchange rate slightly impacts the stock price.

Implement innovative teaching methods to actively change from passive knowledge acquisition to active, enhancing interaction between teachers and students and acquiring knowledge and practicing necessary skills via training. So, students can practice skills, apply learned knowledge, form capacity, and improve their personality and qualities.

In addition, it is necessary to strengthen group discussions and increase interaction between teachers and students to promote the development of students' social competence. In addition to providing individual knowledge and skills in each subject, teachers need to add interdisciplinary, integrated learning topics to help students develop their ability to solve complex problems.

6. Conclusion and policy suggestions

The paper presented cases and examples from the business field to connect theory with practice and learn based on problems and case studies. The educational approach used in teaching problem-solving skills has been explained. The paper has concentrated on using models as a powerful tool for solving economics and management science problems. The article has provided detailed information on several aspects of the teaching approach applied.

Based on the above analysis, we suggest using the case study method in business and economics schools. Schools need to support teachers and encourage them to combine teaching methods and scientific research results related to the subject. They should orient students to have learning methods associated with scientific research related to their profession.

Schools need to create better connections with institutes, research centers, production, business establishments, and business and socio-economic organizations to combine research and transfer scientific research results. They need to organize more physical activities for students combined with research activities, maximize their ability, creativity, and independence, and improve students' learning attitudes. Schools need to invest in facilities and materials for teaching, scientific research, learning, and physical activities of lecturers and students to improve the quality of education and training.

7. Future research directions

This research paper helps further future research to enhance the robustness of case study methods for teaching students to sin other majors such as social sciences, history, manufacturing, and technology management.

References

1. Al-Shammari, M. (2005). Assessing the Learning Experience in a Business Process Re-engineering Course (BPR) at the University of Bahrain," *Business Process Management Journal*, 2005, 11(1), 47-62.

2. Al-Shammari, M. (2022). An Exploratory Study of Experiential Learning in Teaching Supply Chain Management in an Emerging Market Economy, *Journal of International Education in Business, ahead-of-print.*

3. Ahmad, N., and Ramzan, M. (2016). Stock Market Volatility and Macroeconomic Factor Volatility, *International Journal of Research in Business Studies and Management*, 3(7), 37-44.

4. Alavi, S., Habel, J., Guenzi, P., & Wieseke, J. (2017). The role of leadership in salespeople's price negotiation behavior, *J. of the Acad. Mark. Sci*.

5. Brymer, R., and Newman, W. (2016). An experiential supply chain management field study: effectively bridging the gap between classroom and practice, *Journal of Higher Education Theory and Practice*, 16(6), 48-56.

6. Dinh Tran Ngoc Huy, Trung-Hieu Le, Tran Duc Thang, Nguyen Thi Hoa, and Ly Thi Hue (2021). Discussion on E-Learning Solutions for Students and Issues of Technology Application in Classroom. *Design Engineering*, Issue 7, 11432-11443. Retrieved from http://www.thedesignengineering.com/index.php/DE/article/view/4274.

7. DTN Huy, NT Hang, and NT Dung. (2021). Marketing Strategy based on Competitor Analysis-A Case in Vietnam Medicine Sector, *Revista Geintec-Gestao Invovacao E Tecnologias*,11 (3), 103-111.

8. D Thi Ngu, DT Huong, DTN Huy, PT Thanh, and ES Dongul. (2021). Language teaching application to English students at master's grade levels on history and macroeconomic-banking management courses in universities and colleges, *Journal of Language and Linguistic Studies*, 17 (3), [1457]-1468.

9. Do Thu Huong, Dinh Tran Ngoc Huy, Nguyen Thi Hang ,Pham Thi Huyen Trang, and Duong Thi Ngu. (2021). Discussion on Case Teaching Method in a Risk Management Case Study with Econometric Model

at Vietnam Listed Banks: Issues Of Economic Education for Students, *Review of International Geographical Education*, 11(5).

10. DTN Huy. (2021). Banking sustainability for economic growth and socio-economic development–case in Vietnam, *Turkish Journal of Computer and Mathematics Education* (TURCOMAT) 12 (2).

11. Gerring, J. (2004). What Is a Case Study and What Is It Good for?. The American Political Science Review. 98(2), 341-354.

12. Hieu, L.T., Huong, D.T., Huy, D.T.N., Dung, N.T.P., and Amp; Trung, N.D. (2021). Identifying learners' behavior from videos affects the teaching methods of lecturers in Universities. *Design Engineering*, 11146-11157. Retrieved from http://www.thedesignengineering.com/index.php/DE/article/view/4117.

13. Hac, L.D., Huy, D.T.N., Thach, N.N., Chuyen, B.M., Nhung, P.T.H., Thang, T.D., Anh, T.T. (2021). Enhancing risk management culture for sustainable growth of Asia commercial bank -ACB in Vietnam under mixed effects of macro factors, *Entrepreneurship and Sustainability Issues*, 8(3).

14. Hang, T.T.B., Nhung, D.T.H., Hung, N.M., Huy, D.T.N., Dat, P.M. (2020). Where Beta is going–case of Viet Nam hotel, airlines, and tourism company groups after the low inflation period, *Entrepreneurship and Sustainability Issues*, 7(3).

15. Hang, N.T., Tinh, D.T., Huy, D.T.N., & Nhung, P.T.H. (2021). Educating and training labor force Under Covid 19; Impacts to Meet Market Demand in Vietnam during Globalization and Integration Era, *Journal for Educators, Teachers, and Trainers*,12(1): 179-184. DOI: 10.47750/jett.2021.12.01.023.

16. Huy, D.T.N. (2015). The Critical Analysis of Limited South Asian Corporate Governance Standards After Financial Crisis, *International Journal for Quality Research*, 9(4): 741-764.

17. Hai, N.T et al. (2021). Educational Perspectives on differences between Management Case Study and Economics and Finance Case Study Teaching in Universities, *Design Engineering*, Issue 7.

18. Huy, D.T.N. (2012). Estimating Beta of Viet Nam listed construction companies groups during the crisis, *Journal of Integration and Development*, 15 (1), 57-71.

19. Huong, L.T.T., Huong, D.T., Huy, D.T.N., & Thuy, N.T. (2021). Education for students to enhance research skills and meet demand from workplace- Case in Vietnam, *Elementary Education Online*, 20(4).

20. Huy, D.T.N., & Hien, D.T.N. (2010). The backbone of European corporate governance standards after the financial crisis, corporate scandals, and manipulation, *Economic and Business Review*, 12(4).

21. Huy, D. T.N., Loan, B. T., and Anh, P. T. (2020). Impact of selected factors on stock price: a case study of Vietcombank in Vietnam, *Entrepreneurship and Sustainability*, Vol. 7(4): 2715-2730. https://doi.org/10.9770/jesi.2020.7.4(10).

22. Hoa, N.T et al. (2021). Analysis of Case Teaching Method in Universities- An Economic Case Study in Pyrolysis Project, *Design Engineering*, Issue 7.

23. Huy, D. T.N., Dat, P. M., và Anh, P. T. (2020). Building an econometric model of selected factors' impact on stock price: a case study, *Journal of Security and Sustainability Issues*, 9(M): 77-93. https://doi.org/10.9770/jssi.2020.9.M(7).

24. Huy D.T.N., Nhan V.K., Bich N.T.N., Hong N.T.P., Chung N.T., Huy P.Q. (2021). Impacts of Internal and External Macroeconomic Factors on Firm Stock Price in an Econometric Expansion model: A Case in Vietnam Real Estate Industry, Data Science for Financial Econometrics, *Studies in Computational Intelligence*, vol.898, Springer. http://doi-org-443.webvpn.fjmu.edu.cn/10.1007/978-3-030-48853-6-14.

25. Huy, D.T.N. , An, T.T.B. , Anh, T.T.K. , Nhung, P.T.H. (2021). Banking sustainability for economic growth and socio-economic development – case in Vietnam, *Turkish Journal of Computer and Mathematics Education*, 12(2), pp. 2544–2553Huy.

26. Kien, Le & Nguyen, M. (2021). Educational and political engagement, *International Journal of Educational Development*, 85.

27. Kien, Le & Nguyen, M. (2021). In-utero Exposure to Rainfall Variability and Early Childhood Health, *World development*, 144.

28. Kien, Le & Nguyen, M. (2021). Aerial bombardment and educational attainment, International Review of Applied Economics, 34(3).

29. Lapoule, P., & Lynch, R. (2018). The case study method: exploring the link between teaching and research, Journal of Higher Education Policy and Management, 40(5). https://doi.org/10.1080/1360080X.2018.1496515.

30. O'Keeffe, A., Ozuem, W., & Lancaster, G. (2015). Leadership marketing: an exploratory study, Journal of Strategic Marketing, 24(5).

31. Nguyen Thi Thanh Phuong, Dinh Tran Ngoc Huy, Pham Van Tuan. (2020). The Evaluation of Impacts of a Seven Factor Model on NVB Stock Price in Commercial Banking Industry in Vietnam - And Roles of Disclosure of Accounting Policy in Risk Management, *International Journal of Entrepreneurship*, 24 (special issue 1).

32. NTP Nga, P Van Tuan, DTN Huy, DT Huong. (2021). Relationship between Competitor-based Marketing Mix Strategies and Production Activities in Manufacturing and Renewable Energy Companies, *Advances in Mechanics*, 9(3), 1367-1378.

33. ND Trung, DTN Huy, P Van Tuan, DT Huong. (2021). The Impact of Digital Tech Effects On Marketing Strategies And Choosing Competitor Affecting On Business Operation-A Case In Hotel And Entertainment Sector, *Design Engineering*, issue 7.

34. Nguyen Thanh Hoang, Dinh Tran Ngoc Huy (2021). Determining Factors for Educating Students for Choosing to Work for Foreign Units: Absence of Self-Efficacy, *Journal for Educators, Teachers, and Trainers*, 12(2), 11 – 19. DOI: 10.47750/jett.2021.12.02.002.

35. N ThiHoa, NT Hang, NT Giang, DTN Huy. (2021). Human resource for schools of politics and international relations during globalization and EVFTA, *Elementary Education Online* 20 (4).

36. Ozelkan, E., & Rajamani, D. (2006). An Effective Framework for Teaching Supply Chain Management, *The 2006 Annual Conference & Exposition*, Chicago, Illinois. https://peer.asee.org/1435

37. Pham Tuan Anh, Dinh Tran Ngoc Huy, Bui Thi Thu Loan. (2020). Analysis of a Financial Model for Converting Industrial Waste Tires into Clean Energy for Environment Protection-A Model in Developing Countries, *Wseas Transactions on Environment and Development*, 15, 447-454.

38. PM Dat, ND Mau, BTT Loan, DTN Huy. (2020). Comparative China Corporate Governance Standards after Financial Crisis, Corporate Scandals and Manipulation, *Journal of Security and Sustainability*, Vol. 9 (3).

39. P Van Tuan, DTN Huy, ND Trung, NT Hoa. (2021). Marketing Strategies for Tourism and Digital Tech Applications in Tourism Industry: A Case of OCH Tourism Corporation in Vietnam, *Design Engineering*, Vol. 7.

40. Tinh, D.T., Thuy, N.T., & Huy, D.T.N. (2021). Doing Business Research and Teaching Methodology for Undergraduate, Postgraduate and Doctoral Students-Case in Various Markets Including Vietnam, *Elementary Education Online*, 20(1), 1414-1418. DOI: 10.17051/ilkonline.2021.01.148.

41. Thi Hang Nguyen, Van Huan Nguyen, Dinh Tran Ngoc Huy. (2021). Transforming the University Management Model in the Concept of Digital Transformation, *Revista Geintec-Gestao Inovacao E Tecnologias*, 11(3), 380-387.

42. TTH Ha, NB Khoa, DTN Huy, VK Nhan, DH Nhung, PT Anh, PK Duy. (2020). Modern corporate governance standards and role of auditing-cases in some Western European countries after the financial crisis, corporate scandals and manipulation, *International Journal of Entrepreneurship*, 23 (1S).

43. Weenk, E. (2019). *Mastering the Supply Chain: Principles, Practice, and Real-Life Applications*. Kogan Page, London.

44. https://www.sbv.gov.vn