Educational Issues for Accounting Major Students in Colleges and Univeristies in Emerging Markets Including Vietnam

Hoang Thanh Hanh[1], Dinh Tran Ngoc Huy[2]

[1]PhD, Academy of Policy and Development (APD), Hanoi Vietnam. E-mail: hoangthanhhanh@apd.edu.vn

[2]MBA, Banking University HCMC Ho Chi Minh City Vietnam.

International University of Japan, Japan. E-mail: dtnhuy2010@gmail.com

ABSTRACT

We select JVC - Japan Vietnam medical company, as a case study for teaching accounting students for accounting major, and in accounting management subjects.

Financial accounting has been becoming necessary for students to understand and read financial accounting figures, and do accounting researches.

This study mainly use combination of quantitative methods (statistics, calculation formulas) and qualitative methods including synthesis, inductive and explanatory methods.

The research findings tell us that in order to study accounting well, Master accounting students need to understand and can read quantitative model and results

Besides, this study also give out recommendations for enhancing business result of JVC - medical company in Vietnam via accounting net profit model.

Introduction

Teaching method for Master accounting students can be done via the help of a typical company or a case study in medical sector in Vietnam.

Accounting is a profession that requires a lot of practice to master. Moreover, the accounting industry is quite specific in relation to money and is carried out according to the law. If you only study accounting yourself and do not have a professional instructor, it is difficult to do accounting proficiently.

Students in college, universities and at postgraduate level do not know anything about accounting, but with theoretical knowledge, it will be difficult to apply when doing real accounting without going through the practice process. Learning theory must be associated with the reality of the business

In this paper we choose JVC (Japan Vietnam company) in medical sector which is listed on stock exchange.

First step students need to read accounting charts as:

- We see ROA and ROE of JVC increased in year 2017 so it is good signal. (chat 1)
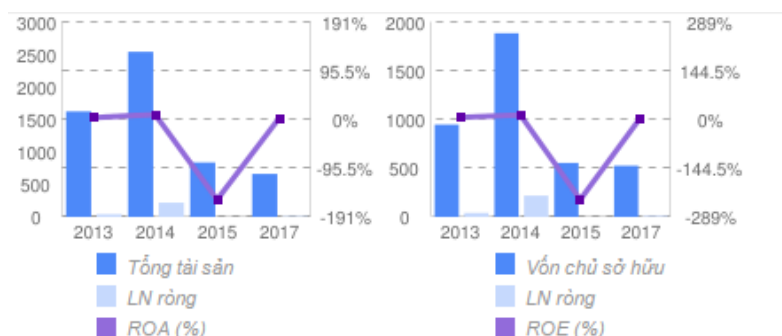- and ROA and ROE increased in 217 while EPS reduced

Chart 1. JVC business results 4 recent years

Chỉ tiêu tài chính ◄Trước Sau►	Năm 2013	Năm 2014	Năm 2015	Năm 2017	
EPS (nghìn đồng)	0.79	2.8	-11.87	0.09	
BV (nghìn đồng)	16.75	16.82	4.95	4.69	
P/E	23.16	5.96	-0.45	45.67	
ROA (%)	2.56	8.61	-158.74	1.58	
ROE (%)	4.38	11.6	-240.07	1.99	

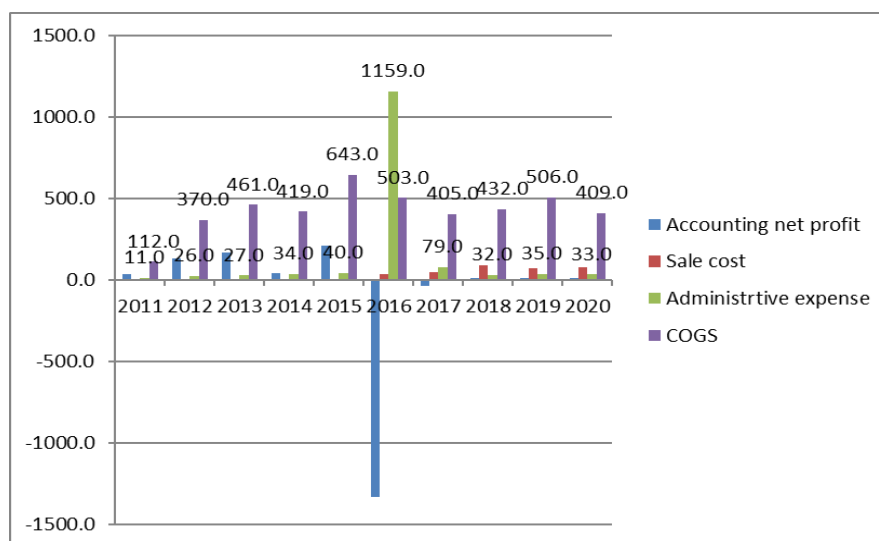**Figure 1.** Financial index

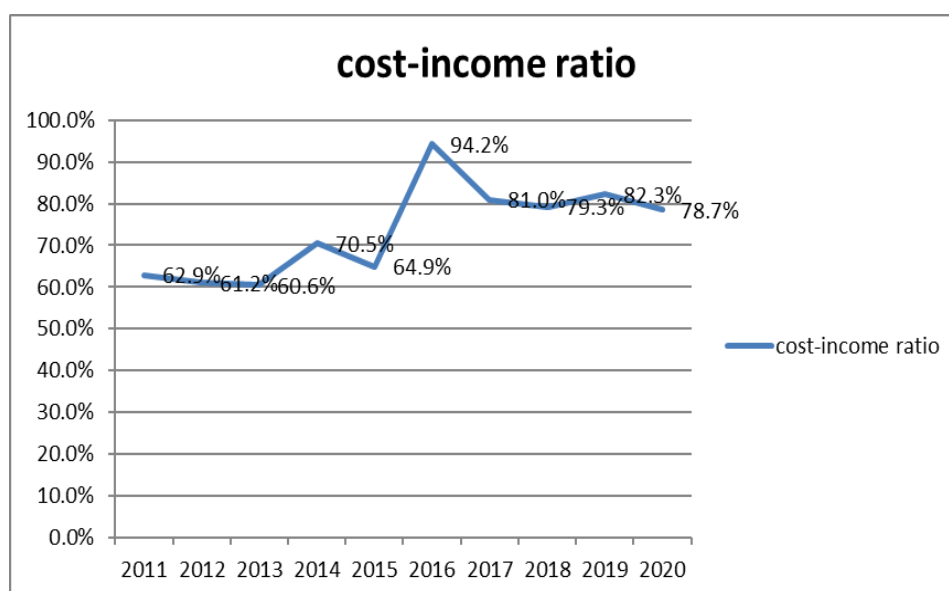**Chart 2.** Net profit and cost factors

Chart 3. Cost/income ratio variation

We also see:

- in chart 2 that: COGS is manged stably and reduced in 2020.

- in chart 3: cost/income ratio goes down in 202.

All internet data such as cost and revenue data, lending rate we take from reliable internet data sources , esp. from website of State Bank of Vietnam, Bureau of Statistics, Minsitry of Finance, banks, etc.

We structure our paper with introduction, literature review, method, main results, discussion and conclusion.

Literature Review

Arasu et al (2014) found the Internet has revolutionized services across institutions. The Banking sector has registered significant change in the quality of service owing to the bandwidth of information flow ensuring greater customer-satisfaction. This has also brought into perspective the security environment within which information flow takes place.

Then Haliti et al (2016) stated data with SPSS 21 version, and the hypotheses were tested by means of correlation and linear regression. The findings of the study proved that commercial banks in Kosovo could enlarge their profitability by increasing the level of bank loaning and other investments, except for managing risk and liquidity properly.

Last but not least, Huy, D.T.N et al (2020) measure effects of external factors on bank stock price in case of a big listed bank in Vietnam - Vietcombank which left the direction for further researches on internal factors effects measuring.

Moreover, Gupta (2019) specified that Information system (IS) is important in almost all the functional areas of any bank i.e. HR, Marketing, Finance, etc. It also helps in risk management and cash management along with maintaining long run customer relationship.

And last but not least, Sibanda et al (2020) mentioned digital technology has transformed banking from classical model to innovative Fintech collaborative model.

Then, We summarize previous studies as follows:

Table 1. Summary of previous studies

Authors	Year	Contents, results
Karim, A.J	2011	Management Information Systems (MIS) is the key factor to facilitate and attain efficient decision making in an organization.
Avegrou, C.	2008	Information system (IS) in emerging markets research has expanded the IS research agenda and developed new understanding of IS innovation phenomena, mainly through its attention to social context and strategic concerns associated with socio-economic development. As it encounters questions on policy and practice of development, it is confronted with critical issues associated with the role of Information and Communication Technology (ICT) in the transformation of social relations and macro-level institutions.
Endri E. et al	2020	the variables of Non-Performing Loans (NPL), Loan to Deposit Ratio (LDR), Return on Assets (ROA), Interest Rate (SBI), and Exchange Rate (FOREX) affect NIM. The exchange rate variable has a predominant effect, while the NPL factor has a less strong influence on NIM. The empirical evidence from this research is important for commercial banks in Indonesia to improve operational efficiency through NIM performance. Internal and external factors of a bank should be subject of attention of bank managers.
Giebe et al	2019	a progressive tool for providing customer-oriented services and products, in the banking sector, is currently defined as "Big Data & Analytics".
Feitosa et al	2019	Disruptive technologies are triggers that transform the nature of work, leading to profound changes in organizational structure, labor relations, employee skills, customer relationship and communications.

Methodology

Method and Data

This study mainly use combination of quantitative methods and qualitative methods including synthesis, inductive and explanatory methods.

For quantitative analysis, the study is supported with OLS regression.

We will present teaching method for accounting students in universities via an econometric model measuring impacts on accounting net profit of a typical company in Vietnam, JVC company in medical industry.
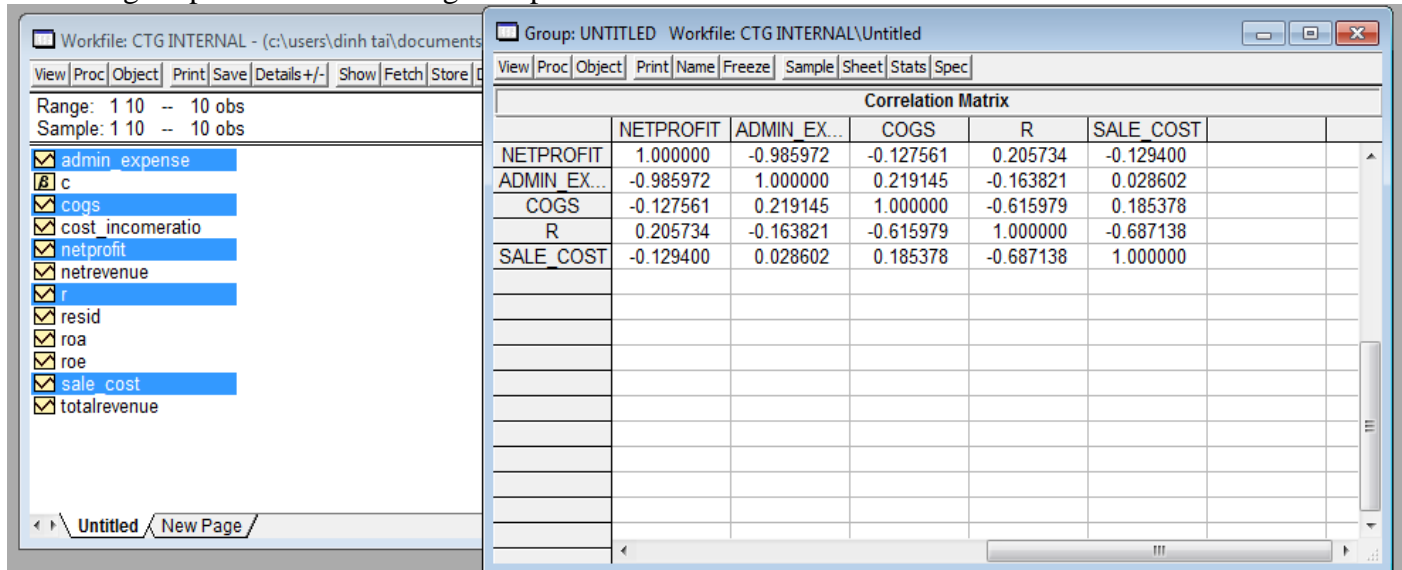

Figure 2. Model of descriptive statistics for cost and revenue factors

Data is collected from reliable internet sources and websites.

Looking at descriptive statistics below,

First step, accounting students can learn that:

- Correlation between COGS and net profit is higher than that between admin expense and net profit (figure 2).
- Correlation between ROA and net profit is higher than that between net revenue and net profit (figure 4).

	NETPROFIT	ADMIN_EX...	COGS	R	SALE_COST
Mean	-75.30000	147.6000	426.0000	0.115260	34.50000
Median	24.00000	33.50000	425.5000	0.100000	21.00000
Maximum	208.0000	1159.000	643.0000	0.190000	91.00000
Minimum	-1335.000	11.00000	112.0000	0.080000	0.000000
Std. Dev.	449.7575	355.7909	134.6559	0.039225	36.13017
Skewness	-2.506960	2.655023	-0.955509	1.138882	0.439578
Kurtosis	7.635160	8.074142	4.515897	2.705184	1.547459
Jarque-Bera	19.42670	22.47646	2.479138	2.197970	1.201164
Probability	0.000060	0.000013	0.289509	0.333209	0.548492
Sum	-753.0000	1476.000	4260.000	1.152600	345.0000
Sum Sq. Dev.	1820536.	1139284.	163190.0	0.013847	11748.50

Figure 3. Statistics of cost factors

	NETPROFIT	ADMIN_EX...	COGS	R	SALE_COST
NETPROFIT	1.000000	-0.985972	-0.127561	0.205734	-0.129400
ADMIN_EX...	-0.985972	1.000000	0.219145	-0.163821	0.028602
COGS	-0.127561	0.219145	1.000000	-0.615979	0.185378
R	0.205734	-0.163821	-0.615979	1.000000	-0.687138
SALE_COST	-0.129400	0.028602	0.185378	-0.687138	1.000000

Figure 4. Cost factors correlation matrix

	NETPROFIT	COST_INC...	NETREVE...	ROA	ROE	TOTALREV...
Mean	-75.30000	0.735600	581.1000	-0.110300	-0.153600	121.8900
Median	24.00000	0.746000	568.0000	0.020500	0.032000	10.30000
Maximum	208.0000	0.942000	990.0000	0.177000	0.357000	487.0000
Minimum	-1335.000	0.606000	178.0000	-1.587000	-2.401000	4.100000
Std. Dev.	449.7575	0.112341	205.8675	0.523025	0.799523	189.2978
Skewness	-2.506960	0.350483	0.100639	-2.587013	-2.541618	1.297091
Kurtosis	7.635160	2.033432	3.814627	7.867834	7.740222	2.919940
Jarque-Bera	19.42670	0.594003	0.293387	21.02764	20.12874	2.806745
Probability	0.000060	0.743043	0.863558	0.000027	0.000043	0.245767
Sum	-753.0000	7.356000	5811.000	-1.103000	-1.536000	1218.900
Sum Sq. Dev.	1820536.	0.113584	381432.9	2.461992	5.753128	322502.8

Figure 5. Revenue factors statistic

	NETPROFIT	COST_INC...	NETREVE...	ROA	ROE	TOTALREV...
NETPROFIT	1.000000	-0.743734	0.247142	0.994135	0.992468	0.118194
COST_INC...	-0.743734	1.000000	-0.206243	-0.725027	-0.739205	0.419076
NETREVE...	0.247142	-0.206243	1.000000	0.154718	0.154808	-0.047046
ROA	0.994135	-0.725027	0.154718	1.000000	0.999257	0.150723
ROE	0.992468	-0.739205	0.154808	0.999257	1.000000	0.135675
TOTALREV...	0.118194	0.419076	-0.047046	0.150723	0.135675	1.000000

Figure 6. Revenue factors correlation matrix

Main Results

4.1 Overall Results

Next step, accounting students will learn correlation between accounting net profit and other cost and revenue factors.
As shown in below figure:

- Between net profit and admin expense, COGS and cost-income ratio: there is negative correlation
- Between net profit and lending rate and ROE: there is positive correlation.
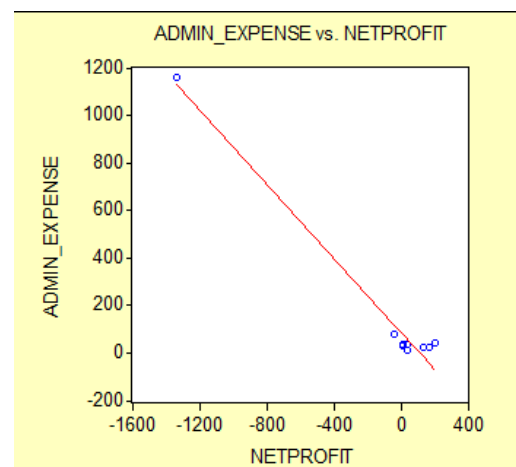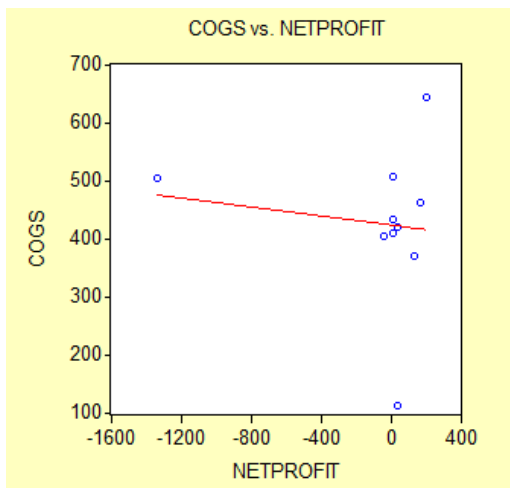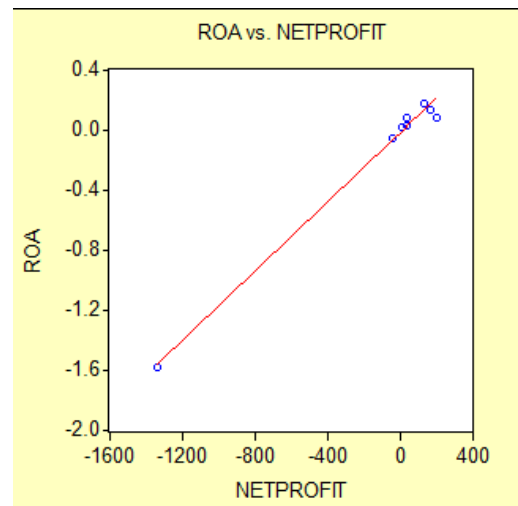

Figure 7

Figure 8

Figure 9
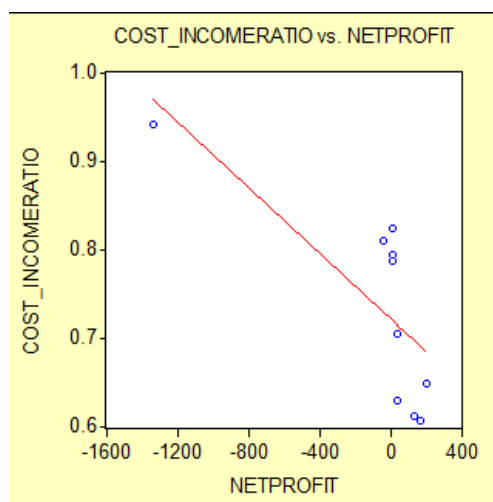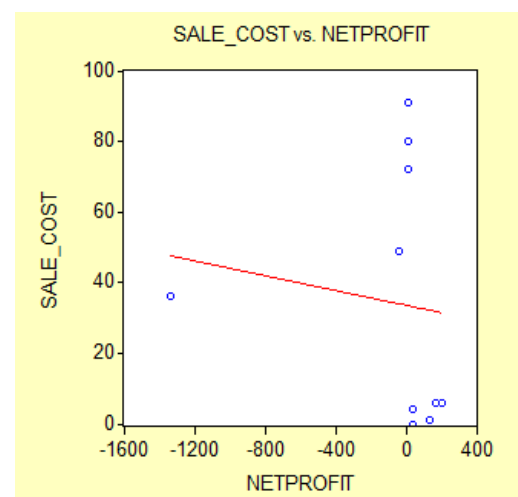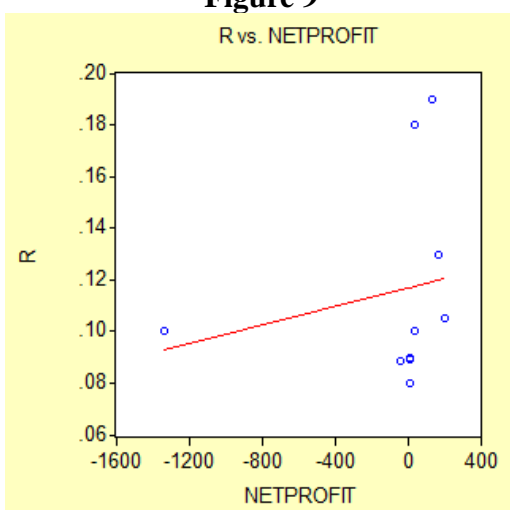
Figure 10

Figure 11

Figure 12

Effects on Accounting Net Profit via OLS Regression Results

Next step, students will learn via Running OLS regression with Eviews gives below results:

- Coefficient of -1.2, so there is negative correlation between net profit and admin expense (figure 1).
- Co efficient of -0.4, there is negative relationship between net profit and COGS.
- Coefficient of -1.6, there is negative correlation between net profit and sale cost.

Dependent Variable: NETPROFIT
Method: Least Squares
Date: 06/04/21 Time: 13:33
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ADMIN_EXPENSE	-1.246373	0.074598	-16.70781	0.0000
C	108.6646	27.48154	3.954095	0.0042

R-squared	0.972140	Mean dependent var		-75.30000
Adjusted R-squared	0.968658	S.D. dependent var		449.7575
S.E. of regression	79.62411	Akaike info criterion		11.76937
Sum squared resid	50719.99	Schwarz criterion		11.82988
Log likelihood	-56.84684	F-statistic		279.1509
Durbin-Watson stat	1.662299	Prob(F-statistic)		0.000000

Figure 13. Regression results for single factor

Dependent Variable: NETPROFIT
Method: Least Squares
Date: 06/04/21 Time: 13:33
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
COGS	-0.426062	1.171239	-0.363770	0.7255
C	106.2023	520.8985	0.203883	0.8435

R-squared	0.016272	Mean dependent var		-75.30000
Adjusted R-squared	-0.106694	S.D. dependent var		449.7575
S.E. of regression	473.1427	Akaike info criterion		15.33353
Sum squared resid	1790912.	Schwarz criterion		15.39404
Log likelihood	-74.66764	F-statistic		0.132329
Durbin-Watson stat	2.393744	Prob(F-statistic)		0.725456

Figure 14. Regression results for single factor

Dependent Variable: NETPROFIT
Method: Least Squares
Date: 06/04/21 Time: 13:34
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SALE_COST	-1.610801	4.364120	-0.369101	0.7216
C	-19.72735	212.2372	-0.092950	0.9282

R-squared	0.016744	Mean dependent var		-75.30000
Adjusted R-squared	-0.106163	S.D. dependent var		449.7575
S.E. of regression	473.0291	Akaike info criterion		15.33305
Sum squared resid	1790052.	Schwarz criterion		15.39356
Log likelihood	-74.66524	F-statistic		0.136236
Durbin-Watson stat	2.257552	Prob(F-statistic)		0.721630

Figure 15. Regression results for single factor

Then below figure show us:

- COGS and lending rate have positive correlation with net profit.
- ad admin expense has higher (negative) coefficient, net profit will increase if admin expense declines.

Dependent Variable: NETPROFIT
Method: Least Squares
Date: 06/04/21 Time: 13:30
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ADMIN_EXPENSE	-1.269261	0.028487	-44.55593	0.0000
COGS	0.554858	0.102919	5.391227	0.0030
R	1156.296	475.8835	2.429788	0.0594
SALE_COST	-0.774071	0.413913	-1.870131	0.1204
C	-230.8959	100.6445	-2.294173	0.0703

R-squared	0.997595	Mean dependent var		-75.30000
Adjusted R-squared	0.995671	S.D. dependent var		449.7575
S.E. of regression	29.59279	Akaike info criterion		9.919792
Sum squared resid	4378.667	Schwarz criterion		10.07108
Log likelihood	-44.59896	F-statistic		518.4676
Durbin-Watson stat	3.468037	Prob(F-statistic)		0.000001

Figure 16. Regression for 4 cost factors

And below figure show us:

- COGS and lending rate have positive correlation with net profit.
- As we see COGS has higher (positive) coefficient, net profit will increase if COGS goes up.

Dependent Variable: NETPROFIT
Method: Least Squares
Date: 06/04/21 Time: 13:31
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ADMIN_EXPENSE	-1.132767	0.054337	-20.84692	0.0000
COGS	0.434614	0.082107	5.293232	0.0061
R	267.0737	459.4430	0.581299	0.5922
SALE_COST	0.086484	0.423654	0.204138	0.8482
COST_INCOMERATIO	-690.7229	257.5392	-2.682011	0.0551
C	381.0800	237.8865	1.601940	0.1844

R-squared	0.999140	Mean dependent var		-75.30000
Adjusted R-squared	0.998066	S.D. dependent var		449.7575
S.E. of regression	19.77854	Akaike info criterion		9.090781
Sum squared resid	1564.762	Schwarz criterion		9.272332

Figure 17. Regression for 5 cost factors

And below figure show us:

- COGS and sale cost have negative correlation with net profit.
- As we see Cost/income ratio has higher (negative) coefficient, net profit will increase if cost/income ratio goes down.

Dependent Variable: NETPROFIT
Method: Least Squares
Date: 06/04/21   Time: 13:31
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ADMIN_EXPENSE	-1.136894	0.055146	-20.61611	0.0002
COGS	-0.647542	1.138890	-0.568573	0.6094
R	359.7434	474.9063	0.757504	0.5038
SALE_COST	-0.010940	0.440659	-0.024826	0.9818
COST_INCOMERATIO	-9.248102	761.2728	-0.012148	0.9911
NETREVENUE	0.703417	0.738323	0.952722	0.4110
C	-74.68059	535.5106	-0.139457	0.8979

R-squared	0.999340	Mean dependent var	-75.30000
Adjusted R-squared	0.998020	S.D. dependent var	449.7575
S.E. of regression	20.01081	Akaike info criterion	9.026450

Figure 18. Regression for 6 cost and revenue factors

And below figure show us:

- Sale cot and net revenue have positive correlation with net profit.
- As we see net revenue has higher (positive) coefficient, net profit will increase if net revenue goes up.

Dependent Variable: NETPROFIT
Method: Least Squares
Date: 06/04/21   Time: 13:31
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ADMIN_EXPENSE	-2.232808	1.239561	-1.801289	0.2135
COGS	-1.520446	1.539728	-0.987477	0.4275
R	1602.792	1488.509	1.076777	0.3942
SALE_COST	0.069514	0.466433	0.149034	0.8952
COST_INCOMERATIO	571.9753	1027.576	0.556626	0.6338
NETREVENUE	1.423207	1.117569	1.273484	0.3308
ROA	-763.6624	862.8377	-0.885059	0.4695
C	-617.1662	827.5189	-0.745803	0.5335

R-squared	0.999526	Mean dependent var	-75.30000
Adjusted R-squared	0.997866	S.D. dependent var	449.7575
S.E. of regression	20.77509	Akaike info criterion	8.895949

Figure 19. Regression for 7 cost and revenue factors

And below figure show us:

- Sale cost and COGS have negative correlation with net profit.
- As we see COGS and admin expense has higher (negative) coefficient, net profit will increase if COGS and admin expense goes down.

Dependent Variable: NETPROFIT
Method: Least Squares
Date: 06/04/21   Time: 13:32
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ADMIN_EXPENSE	-2.630752	2.340292	-1.124113	0.4628
COGS	-2.608217	4.874082	-0.535120	0.6872
R	2021.448	2651.883	0.762269	0.5854
SALE_COST	-0.203887	1.276130	-0.159770	0.8991
COST_INCOMERATIO	1214.348	2952.394	0.411310	0.7516
NETREVENUE	2.174063	3.397692	0.639865	0.6376
ROA	-1049.779	1654.520	-0.634492	0.6401
TOTALREVENUE	0.058534	0.236335	0.247674	0.8454
C	-1081.406	2191.753	-0.493398	0.7082

R-squared	0.999553	Mean dependent var	-75.30000
Adjusted R-squared	0.995979	S.D. dependent var	449.7575
S.E. of regression	28.51873	Akaike info criterion	9.036414

Figure 20. Regression for 8 cost and revenue factors

And below figure show us:

- Cost -income ratio and net revenue have positive correlation with net profit
- As we see cost-income ratio has higher (positive) coefficient, net profit will increase if cost/income ratio goes up and if we manage better COGS

Dependent Variable: NETPROFIT
Method: Least Squares
Date: 06/04/21   Time: 13:32
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ADMIN_EXPENSE	1.965355	1.844153	1.065722	0.4798
COGS	-1.395827	0.827195	-1.687422	0.3406
R	-1131.450	1375.595	-0.822517	0.5618
SALE_COST	-0.400966	0.315780	-1.269763	0.4247
COST_INCOMERATIO	668.7950	552.4227	1.210658	0.4395
NETREVENUE	0.886650	0.638309	1.389060	0.3972
ROA	4764.376	2311.897	2.060808	0.2876
ROE	-1693.822	694.0485	-2.440495	0.2476
C	-368.3784	455.2832	-0.809119	0.5669

R-squared	0.999932	Mean dependent var	-75.30000
Adjusted R-squared	0.999387	S.D. dependent var	449.7575
S.E. of regression	11.13981	Akaike info criterion	7.156342

Figure 21. Regression for 8 cost and revenue factors

Discussion

Students need to analyze other accounting factors to understand financial accounting situation of the firm JVC in medical industry:

- As we see in below chart, ratio debt/asset reduce in 2017 so it shows more safety for business.
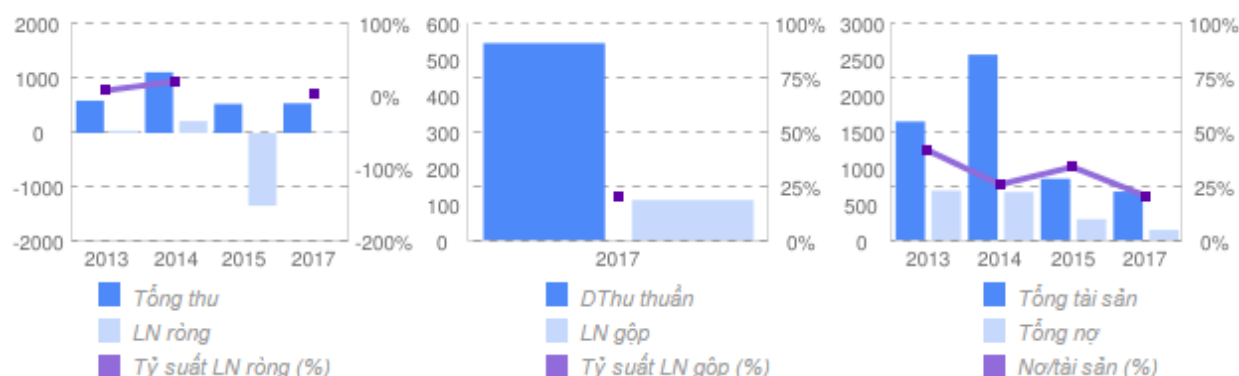

Chart 4. Debt/asset ratio

Conclusion

We summarize that:

- Accounting students need to manage better costs: COGS and admin expenses in order to increase net profit for JVC company
- Then, pushing net revenue in order to increase accounting net profit
- In order to study accounting well, Master students need to understand and can read quantitative model and results

Most businesses have to spend a lot of money and time on retraining. This is due to the way of teaching in schools, mainly focusing on theory and books, too focused on the account system and accounting regime, but neglecting the knowledge and skills of accountants that businesses can use. really necessary. Training at institutions only carries a heavy load of theory but not associated with professional practice. New graduates when being recruited almost have very weak skills in accounting practice.

However, because supply exceeds demand, the labor market is saturated, ... the number of accounting students who have jobs in the right professions accounts for a low percentage. With few students, too many accounting training institutions, in this fierce competition, it is possible to affirm the enhancement of professional practice, bring learners closer to reality, and meet the needs of the labor market. Mobility is the most important factor for accounting training institutions to survive and develop.

Limitation of Research

We can expand our research model for other industries and other markets.

References

[1] Ullah, M.A., Hassan, M., Rasheed, A., Uddin, I., & Latif, A. (2019). Effect of Internal Factors on Profitability of Conventional and Islamic Banks of Pakistan. *Sindh Economics & Business Review International, 1*(1), 47-61.

[2] Almazari, A.A., & Natarajan, T. (2014). Impact of Internal Factors on Bank Profitability: Comparative Study between Saudi Arabia and Jordan. *Journal of Applied Finance & Banking, 4*(1), 125-140.

[3] Arasu, B.S. (2014). Information Systems Success in the Context of Internet Banking: Scale Development. *Journal of Internet Banking and Commerce, 19*(3), 1-15.

[4] 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), 741-746.

[5] Endri, E., MArlina, A., & Hurriyaturroman. (2020). Impact of internal and external factors on the net interest margin of banks in Indonesia. *Banks and Bank Systems, 15*(4), 99-107.

https://doi.org/10.21511/bbs.15(4).2020.09

[6] Hang, T.T.B., Nhung, D.T.H., Nhung, D.H., Huy, D.T.N., Hung, N.M., & Dat, P.M. (2020). Where Beta is Going - Case of Vietnam Hotel, Airlines and Tourism Company Groups After The Low Inflation Period. *Entrepreneurship and Sustainability Issues, 7*(3), 2282-2298. http://doi.org/10.9770/jesi.2020.7.3(55)

[7] Huy, D.T.N., & Hien, D.T.N. (2010). The backbone of European corporate governance standards after financial crisis, corporate scandals and manipulation. *Economic and Business Review, 12*(4), 215-240.

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

[9] Huy, D.T.N., Dat, P.M., & Anh, P.T. (2020). Building and 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)

[10] Huy, D.T.N., & Hien, D.T.N. (2010). The backbone of European corporate governance standards after financial crisis, corporate scandals and manipulation. *Economic and Business Review, 12*(4), 215-240.

[11] Rudhani, L.H., Ahmeti, S., & Rudhani, T. (2016). The Impact of Internal Factors on Bank Profitability in Kosovo. *Economica, 12*(1), 95-107.

[12] Trivellas, P.G., & Santouridis, I. (2013). The Impact of Management Information Systems' Effectiveness on Task Productivitythe Case of the Greek Banking Sector. *International Journal of Computer Theory and Engineering, 5*(1), 170-173. https://doi.org/10.7763/IJCTE.2013.V5.671