POTENTIAL RELATIONSHIP OF INTERNAL CONTROL, INTERNAL AUDIT AND RISK MANAGEMENT IN COMPANY – THE CASE STUDY OF VINGROUP IN VIETNAM

AUTHORSHIP
Hoang Thanh Hanh
Academy of Policy and Development (APD), Hanoi Vietnam.
ORCID: https://orcid.org/0000-0001-7834-0105
E-mail: hoangthanhhanh@apd.edu.vn

Dinh Tran Ngoc Huy
Banking University HCMC Ho Chi Minh city Vietnam - International University of Japan, Japan.
ORCID: https://orcid.org/0000-0002-2358-0699
E-mail: dbnhuy2010@gmail.com

INTRODUCTION
First, we recognize the importance of internal control, internal audit and risk management has increased to a new level in recent years. Suyono and Haiyanto (2012) stated that among functions of Internal control in firms is that it help to protect or safeguard firm assets and ensure information reliability, and support organization effectiveness. Their results show that there is positive relationship between internal audit, internal control and good governance. This is significant effect. In this paper we mainly focus on describing relationship among internal control, internal audit and risk management functions in companies and implication sin a specific case study - Vingroup in Vietnam real estate industry.

Vingroup has a strength in real estate industry, but in fact, Vingroup’s predecessor is Technocom Group, established in 1993 in Ukraine. In the early 2000s, Technocom returned to Vietnam, focusing on investing in tourism and real estate with two initial strategic brands, Vinpearl and Vincom. In January 2012, Vincom Joint Stock Company and Vinpearl Joint Stock Company merged, officially operating under the Group model with the name Vingroup - Joint Stock Company. Vingroup is one of Asia’s largest multi-industry private economic groups with a market capitalization of nearly 16 billion US dollars. The Group operates in 3 core business areas, including:

- Technology
- Industry
- Trade in Services

With the desire to bring to the market products and services of international standards and completely new experiences in modern lifestyle, in any field Vingroup has proved its pioneering and leading role. changes in consumption trends. We structure the study with introduction, previous studies, method and data, main findings, discussion and conclusion. We also use reliable internet data to propose a model for risk management via measuring effects of factors on accounting ROA and ROE. All internet data such as lending rate, inflation, GDP growth, risk free rate we take from reliable internet data sources, esp. from website of State Bank of Vietnam, Bureau of Statistics, Ministry of Finance, banks, etc. We structure the study with introduction, previous studies, method and data, main findings, discussion and conclusion.

LITERATURE REVIEW
Danescu et al. (2015) found out the firm objectives can be affected by risk management with proper control system and leadership. Nie (2017) stated that organizations need to get involvement of employee to build internal control and audit. In China firm, there is internal audit and internal control integration. When the firms are strict to internal audit, they can help to reduce risks of business. Then, Oussii and Taktak (2018) found out between quality of internal control and IAF competence, quality of internal audit, there is positive and significant relation.

Beside, Alzeban (2018) pointed that if they find procedures of monitoring absence, there is weakness in internal control activity. In other hand Younas and Kassim (2019) specified that the company image will be enhanced by effective internal control. Then internal control could prove value-added and show vital role in auditing process and proved foundation for external auditors. Moreover, Chang et al (2019) stated that firm management can be supported with The internal audit function (IAF) then they can serve for reporting and compliance. Their
research results show that the bigger size of audit team will help to enhance performance of internal audit in terms of operations and compliance.

**METHODOLOGY**

**Method and data**

This study mainly use combination of quantitative methods and qualitative methods including synthesis, inductive and explanatory methods. We also use experience on internal control and internal audit and risk management and experts' opinions. For quantitative analysis, the study is supported with OLS regression. Data is collected from reliable internet sources and websites.

Looking at descriptive statistics below, we see that:

- standard deviation of sale cost and admin expense are higher than those of COGS and cost-income ration (figure 1)
- standard deviation of total revenue and net revenue is higher than that of net profit (figure 2, 5)
- standard deviation of CPI is higher than that of G (figure 3, 6)
- standard deviation of sale cost and admin expense are higher than those of lending rate and cost-income ration (figure 4)

**Figure 1** - ROA - Cost descriptive statistics

**Figure 2** - ROA - Revenue descriptive statistics

**Figure 3** - ROA - External macro factors statistics

**Figure 4** - ROE - Cost statistics

**Figure 5** - ROE - Revenue statistics

**Figure 6** - ROE - External macro factors

Source: Author calculation, stock exchange and annual reports
MAIN RESULTS

Relationship between internal control, internal audit and risk management

Internal audit provide constant review and appraisal of the systems and procedures introduced by the management with the intention to enable the management to control and utilise their resources properly and effectively. However, frequent achievement in the risk management and the maintenance of good governance in the public sector organization is essentially important for simplifying the future development of a Country (ANUNTAAKALAKUL, 2010). In recent years, enterprise risk management has received a wider international concerned (BEASLEY, CLUNE & HERMANSON, 2006; GORDON, LOEB & TSENG, 2009; IAG, 2010; WOOD, 2009) pointed that in recent years risk management has become an agenda in both public and private sectors.

While Drogalas and Siopi (2017) pointed that processes of Risk management can be enhanced by key roles of internal audit and there is significant relation between risk management and internal audit. Moreover, Mashal (2012) pointed that there is separation between internal audit and risk management. They pointed that internal auditing can add value to risk management processes. In Vietnam, Article 4 of Decree 05/2019/ND-CP states that the objectives of internal audit are as follows:

- Through testing, evaluation and consulting, internal audit provides independent, objective assurances and recommendations on the following:
  - The entity's internal control system has been properly established and operated to prevent, detect and handle risks of the entity.
  - The entity's governance and risk management processes ensure efficiency and high performance.
  - Operational goals and strategic goals, plans and tasks achieved by the entity.

Last but not least, The process of perception and research on internal control has many points of view different. The first reliable definition of internal control was established by the Association American Certified Public Accountants (AICPA, 1994) put it as follows:

- Internal control includes the organization's plan and all methods of coordination and measurement recognized in the enterprise to ensure the safety of assets, check the consistency and reliability of accounting data, enhancing operational efficiency and encourage its implementation.

The Institute of Internal Auditors Research Foundation) issued a report on SAC control (System Auditability and Ability Control) in 1991 (revised 1994), definition: internal control system includes processes, functions, activities, subsystems and people combined or consciously dividing to ensure the goal is achieved efficiently. Accordingly, the SAC report is intended primarily to provide guidance for internal controller. Internal control includes two types of control: management control and accounting control.

* For management control. Management control usually includes activities move like:
  - Create business goals and policies for the entire unit, management responsibilities structure.
  - Establish operating regulations to help the business achieve its goals. Identify internal and external risks affecting the business through monitoring.
  - Establish policies and procedures to address risks
  - Evaluate the completion level of the work of the departments in the business.

* For accounting control. Accounting controls typically include activities like:
  - Review and control the existence of the business.
  - Check that the recording is complete.
• Accurate accounting control of amount, account and recording period
• Protect accounting information and data from illegal intrusion.

Objectives of accounting controls: To protect the assets of the business and accurately assess the reliability of accounting information.

Potential relationship between Risk management, Internal control and Internal audit with an econometric model

Based on above concepts about internal audit and internal control, we see there is interaction with risk management activities of the firm. Therefore it is necessary to make assessment on factors that influence ROA and ROE of the company and through this assessment, we perform risk management better. We perform econometric model for case of Vingroup company in Vietnam as follows.

First, we test ROA under effects of cost factors, revenue factors and external macro factors:

**ROA**

Run OLS regression with Eviews gives below results:

![Figure 7](Vingroup ROA under OLS regression for cost factors)

**Figure 7** - Vingroup ROA under OLS regression for cost factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMIN_EXPENSE</td>
<td>-1.92E-06</td>
<td>6.3E-06</td>
<td>-0.294452</td>
<td>0.7629</td>
</tr>
<tr>
<td>COST_RECOMERATIO</td>
<td>6.57E-07</td>
<td>1.3E-06</td>
<td>0.499887</td>
<td>0.6229</td>
</tr>
<tr>
<td>SALE_COST</td>
<td>6.53E-06</td>
<td>6.72E-06</td>
<td>-0.961504</td>
<td>0.3479</td>
</tr>
<tr>
<td>C</td>
<td>0.206600</td>
<td>1.290827</td>
<td>0.507214</td>
<td>0.6124</td>
</tr>
</tbody>
</table>

**Analysis:** We can infer from the above table that lending rate has higher coefficients than those of admin expense and sale cost, affecting ROA.

**Source:** Author calculation, stock exchange and annual reports

Run OLS regression with Eviews gives below results:

**Figure 8** - Vingroup ROA under OLS regression for revenue factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>NETPROFIT</td>
<td>1.23E-06</td>
<td>1.16E-06</td>
<td>1.118257</td>
<td>0.0000</td>
</tr>
<tr>
<td>NETREVENUE</td>
<td>5.08E-07</td>
<td>1.43E-06</td>
<td>0.1963</td>
<td>0.1811</td>
</tr>
<tr>
<td>TOTALREVENUE</td>
<td>5.94E-06</td>
<td>4.59E-06</td>
<td>0.6211</td>
<td>0.5350</td>
</tr>
<tr>
<td>C</td>
<td>0.015400</td>
<td>0.007800</td>
<td>4.156448</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

**Analysis:** We can infer from the above table that total revenue has higher coefficient than that of net profit, affecting ROA.

Run OLS regression with Eviews gives below results:

**Figure 9** - Vingroup ROA under OLS regression for external macro factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPI</td>
<td>-0.007901</td>
<td>0.006759</td>
<td>0.009673</td>
<td>0.9297</td>
</tr>
<tr>
<td>G</td>
<td>-0.547461</td>
<td>0.856156</td>
<td>-0.630845</td>
<td>0.5278</td>
</tr>
<tr>
<td>R</td>
<td>-0.090500</td>
<td>0.003542</td>
<td>0.202109</td>
<td>0.9811</td>
</tr>
<tr>
<td>RF</td>
<td>0.913491</td>
<td>0.171515</td>
<td>5.337128</td>
<td>0.0000</td>
</tr>
<tr>
<td>C</td>
<td>0.023527</td>
<td>0.004648</td>
<td>0.521239</td>
<td>0.6245</td>
</tr>
</tbody>
</table>

**Analysis:** We can infer from the above table that GDP growth and Risk free rate - Rf have higher or more significant (impacts) coefficients than those of CPI and lending rate, affecting ROA.

**Source:** Author calculation, stock exchange and annual reports
Second, we test ROE of Vingroup under effects of cost, revenue and external macro factors.

**ROE**

Run OLS regression with Eviews gives below results:

**Figure 10 - Vingroup ROE under OLS regression for cost factors**

<table>
<thead>
<tr>
<th>Dependent Variable: ROE</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADMIN_EXPENSE</td>
<td>0.7906</td>
<td>0.0864</td>
<td>9.1043</td>
<td>0.0000</td>
</tr>
<tr>
<td>COST_INCOME/RATIO</td>
<td>0.2060</td>
<td>0.2006</td>
<td>1.0335</td>
<td>0.3019</td>
</tr>
<tr>
<td>SALE_COST</td>
<td>-0.0780</td>
<td>0.2006</td>
<td>-0.3870</td>
<td>0.6970</td>
</tr>
</tbody>
</table>

**Analysis:** We can infer from the above table that admin expense and COGS have higher coefficients than those of sale cost and lending rate, affecting ROE.

**Source:** Author calculation, stock exchange and annual reports

Run OLS regression with Eviews gives below results:

**Figure 11 - Vingroup ROE under OLS regression for revenue factors**

<table>
<thead>
<tr>
<th>Dependent Variable: ROE</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NETPROFIT</td>
<td>6.5236</td>
<td>0.00104</td>
<td>5.5311</td>
<td>0.0000</td>
</tr>
<tr>
<td>NETREVENUE</td>
<td>0.0035</td>
<td>0.00154</td>
<td>2.1867</td>
<td>0.0319</td>
</tr>
<tr>
<td>TOTAL REVENUE</td>
<td>0.00353</td>
<td>0.00163</td>
<td>1.8279</td>
<td>0.0713</td>
</tr>
<tr>
<td>ROE</td>
<td>0.00453</td>
<td>0.00125</td>
<td>3.7922</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

**Analysis:** We can infer from the above table that total revenue has higher coefficient than that of net profit, affecting ROE.

**Source:** Author calculation, stock exchange and annual reports

**DISCUSSION**

For ROA: admin expense, cost-income ratio and sale cost have negative correlation with ROA.

For ROE: admin expense, lending rate and sale coast have negative correlation with ROE.

Dinh Tran Ngoc Huy (2015) indicated firms need to enhance risk management and corporate governance standards in a limited South Asian corporate governance model. In your time, Elif (2016) specified that return on assets is positively related to firm size, international sales, liquidity and growth, and negatively related to leverage and R&D expenditures. On the other hand, gross profit margin is positively related to size and international sales, and negatively related to leverage and R&D expenditures. Finally, results show that Tobin’s Q ratio is higher for firms with higher levels of debt and higher liquidity levels.

Moreover, Companies have become more proactive in identifying risks, especially those that could adversely affect their business systems. At the same time, they also develop more effective methods, programs, and approaches to auditing. In the US, a country with a very developed stock market, Internal Audit is a must-have and the Sarbenes - Oxley Law, born in 2002, also clearly stipulates all companies listed on the stock market report on the effectiveness of the company’s internal control system. However, in Vietnam, the role of internal audit is quite lacustrine, which is partly due to the lack of synchronization in the governance...
system of Vietnamese enterprises. The field of internal audit has not really attracted highly qualified human resources, accompanied by untrained and in-depth human resources.

CONCLUSION
Risk management, internal control, internal audit implications:

Potential risk management and internal audit can be performed to advise the firm - Vingroup that:
- Because net profit and total revenue have positive relation with ROA and ROE, so firms need to manage revenue better to increase profitability ratios.

Potential risk management and internal control can be performed to advise the firm - Vingroup that:
- Because admin expense, lending rate and sale cost have negative correlation with ROE, firms need to pay more attention to control admin expense and sale cost more rationally to increase ROE.

Beside, we see policies implications
Because CPI, G has negative relation with ROE while Rf has positive relation with ROE, macro policies can help to control inflation and GDP growth not increasing much to be in favor of ROE of Vingroup and toward benefits for managing risk. Diamond (2013) specified that there are targets of internal control in public financial management (PFM), such as, compliance with regulations and law, and make sure reliability of data and reports and Huy (2015) also mention better corporate governance and internal control at table:

Table 1 - Limited South Asian Corporate Governance standards

<table>
<thead>
<tr>
<th>SUBJECTS OR PARTIES</th>
<th>MAIN QUALITY FACTORS</th>
<th>SUB QUALITY FACTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit committee</td>
<td>Ensuring financial information complete, accurate, reliable, relevant and timely; F.S in accordance with GAAP;</td>
<td>Identify risks; process of risk identification, risk minimization, risk optimization;</td>
</tr>
<tr>
<td>Nominating committee</td>
<td>Regularly examine performance, Independence, skills and expertise of existing board members to meet firm current and future needs;</td>
<td>Processes to evaluate skills/Knowledge/experience/ effectiveness of individual directors and board;</td>
</tr>
<tr>
<td>Numeration or compensation committee</td>
<td>BD set formal and transparent remuneration policies;</td>
<td>Authority delegated by board;</td>
</tr>
<tr>
<td>CEO and The Chair</td>
<td>Set the board meeting agenda;</td>
<td>Separated roles and offices;</td>
</tr>
<tr>
<td>CFO</td>
<td>N/A (for further research and implementation)</td>
<td>N/A (for further research and implementation)</td>
</tr>
<tr>
<td>Corporate secretary</td>
<td>Ensure a sound communication between the firm and its stakeholders and the availability of Information accessible to stakeholders;</td>
<td>Suitable qualified and component;</td>
</tr>
<tr>
<td>Compliance officer</td>
<td>Compliance function acted by board;</td>
<td>Functions can be covered by secretary;</td>
</tr>
<tr>
<td>Board of Directors or Management Board</td>
<td>Approve corporate governance policy; formulate vision, mission and values of firm; manage resources effectively and efficiently;</td>
<td>Establish risk management policy; provide internal or external training for directors, secretary, audit committee; Actions directors should not do included in formal appointment letters;</td>
</tr>
<tr>
<td>Independent director</td>
<td>Foresight, integrity, expertise, managerial qualities; term&lt;3 yrs;</td>
<td>Not authorized directors; issues of strategy, performance, resources, standards of conduct;</td>
</tr>
<tr>
<td>Supervisory board to the Management</td>
<td>Board of directors;</td>
<td>Can be auditors;</td>
</tr>
<tr>
<td>Supervisory to the Board of Directors</td>
<td>May include external auditors; oversee and advise MGT board;</td>
<td>Independent professional advice;</td>
</tr>
<tr>
<td>Internal control</td>
<td>Reviewed annually by BD; Board review the effectiveness of IC, including financial, operational, compliance, RM;</td>
<td>Evaluate the company program; recommendations to improve RM; facilitate sound coordination with EA;</td>
</tr>
<tr>
<td>Internal audit</td>
<td>Head of IA report to AC; appraisals of IC, RM;</td>
<td>Board appoint internal auditor who should not be a employee;</td>
</tr>
</tbody>
</table>

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

REFERENCES


Potential relationship of internal control, internal audit and risk management in company – the case study of Vingroup in Vietnam

Relacionamento potencial de controle interno, auditoria interna e gestão de riscos na empresa – o estudo de caso do Vingroup no Vietnã

Relación potencial de control interno, auditoría interna y gestión de riesgos en la empresa – el estudio de caso de Vingroup en Vietnam

Resumo
Há interação e relação entre atividades de controle interno, auditoria interna e gestão de riscos na empresa, realizamos este estudo para abordar essas funções em um estudo de caso da Vingroup na indústria imobiliária no Vietnã, esp. Gostaríamos de mencionar o potencial relacionamento entre essas atividades nas empresas e neste caso específico. Os autores utilizam principalmente a experiência e os conselhos de especialistas, juntamente com métodos quantitativos (estatísticas, fórmulas de cálculo) e métodos qualitativos, incluindo síntese, métodos indutivos e explicativos. Os resultados do nosso estudo mostram que. E como o IPC, G tem relação negativa com o ROE, enquanto a Rf tem relação positiva com o ROE, as políticas macro podem ajudar a controlar a inflação e o crescimento do PIB não aumentando muito para ser a favor do ROE do Vingroup e para benefícios para a gestão do risco. Finalmente, por meio de análise e síntese, daremos sugestões para melhores funções de controle interno, auditoria interna e gestão de riscos nas empresas, bem como em um caso específico da Vingroup.


Abstract
There is interaction and relationship among internal control activities, internal audit and risk management in the firm, we conduct this study to address these functions in a case study of Vingroup in real estate industry in Vietnam, esp. We would like to mention potential relationship between these activities in companies and in this specific case. Authors mainly use experience and advice from experts, together with quantitative methods (statistics, calculation formulas) and qualitative methods including synthesis, inductive and explanatory methods. Our study results show that. And because CPI, G has negative relation with ROE while Rf has positive relation with ROE, macro policies can help to control inflation and GDP growth not increasing much to be in favor of ROE of Vingroup and toward benefits for managing risk. Finally, through analysis and synthesis, we will give suggestions for better internal control mechanism, internal audit and risk management functions in companies as well as in a specific case of Vingroup.

Keywords: Internal control internal audit. Risk management. Vingroup. Vietnam.

Resumen
Existe interacción y relación entre las actividades de control interno, auditoría interna y gestión de riesgos en la firma, realizamos este estudio para abordar estas funciones en un estudio de caso de Vingroup en la industria inmobiliaria en Vietnam, esp. Los autores utilizan principalmente la experiencia y el asesoramiento de expertos, junto con métodos cuantitativos (estadísticas, fórmulas de cálculo) y métodos cualitativos que incluyen métodos de síntesis, inductivos y explicativos. Los resultados de nuestro estudio muestran que . Y debido a que el IPC, G tiene una relación negativa con el ROE, mientras que el Rf tiene una relación positiva con el ROE, las políticas macro pueden ayudar a controlar la inflación y el crecimiento del PIB no aumentando mucho para estar a favor del ROE de Vingroup y hacia los beneficios para la gestión del riesgo. Por último, a través del análisis y la síntesis, daremos sugerencias para mejorar el mecanismo de control interno, las funciones de auditoría interna y gestión de riesgos en las empresas, así como en un caso específico de Vingroup.