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Comprehensive Business Ranking in Vietnam Utilizing Adjusted Reciprocal Rank Fusion

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ABSTRACT

Vietnam is currently one of the fastest-growing economies in the world, with companies in a rapid race to become one of the best. However, the lack of a comprehensive ranking in terms of corporate performance in Vietnam makes it a challenge to accurately measure the success of businesses as a whole picture; relying on individual ranking systems might not be sufficient in measuring all aspects. This study addresses the limitations of individual ranking systems by creating a proof-of-concept comprehensive framework ranking system for 229 Vietnamese companies using an adjusted Reciprocal Rank Fusion (RRF) algorithm that integrates twelve domestic and international business rankings. The Adjusted RRF incorporates AI-generated reputation scores from five Large Language Models to determine source weights with human revision and applies time-decay factors to account for the temporal relevance of ranking data. The application of Adjusted RRF enables significant ranking shifts, with the adjusted model enhancing the alignment between the ranking score and real-life firm-level attributes compared to the original RRF. Statistical analysis using multiple linear regression and predictive power score testing identified total assets, net revenue, and number of employees as significant predictors of ranking performance (PPS > 0.25), but having inconsistent linear statistical significance based on the regression model. The potential of the adjusted ranking model provides a more accurate representation of current business performance in the Vietnamese market, offering a valuable reference for job seekers, policymakers, and recruiters in identifying reliable companies in Vietnam.

Keywords: business, ranking, Reciprocal Rank Fusion, fine-tuning, artificial intelligence, model transformation

1. INTRODUCTION

Business rankings are important benchmarks for evaluating corporate performance and market positioning, influencing investor, stakeholder, and strategic planning decisions. In Vietnam's growing economy, multiple domestic and international organizations have published annual rankings that assess companies across diverse criteria, ranging from financial performance, brand value, to operational functionality. However, these individual rankings often yield conflicting assessments of the same companies, making it challenging for stakeholders and reviewers to provide accurate evaluations of business performance in Vietnam, where understanding the current economy is more urgent than ever. The inconsistency of ranking lists stems from variations in evaluation criteria, data sources, and methodological approaches employed by ranking organizations. Additionally, the credibility and reliability of these rankings vary significantly, with some organizations maintaining rigorous auditing processes, while others lack transparency in their assessment methodologies.

To address these limitations, we propose an integrated ranking approach that synthesizes information from multiple authoritative rankings, while accounting for their relative credibility and timely relevance. The study aims to enhance the normal Reciprocal Rank Fusion with reputation scores determined by the collaboration between human and artificial intelligence, along with introducing time decay adjustments, named

the Adjusted Reciprocal Rank Fusion. The improvements aim to develop a more accurate and up-to-date assessment of Vietnamese business performance, providing stakeholders with a consolidated proof-of-concept framework for evaluating companies. Furthermore, the adjusted RRF ranking helps to overcome the limitations of individual ranking systems and opens up new opportunities for future research on a comprehensive business ranking system in Vietnam, addressing the evolving conditions of contemporary business environments.

This research also contributes to the growing literature on machine learning ranking models by demonstrating the potential of incorporating human-AI interaction for evaluation. It can offer a more comprehensive and efficient new method to assist with fusion-based ranking models. The proposed adjusted RRF extends the original RRF into a more contextual and timely tool, not only within the context of Vietnam's economy but in other future domains in need of an aggregated ranking. The remainder of the study will present the methodology of Adjust RRF, ranking results from the adjustments, and the discussion of the proof-of-concept framework with limitations.

2. METHODOLOGY

2.1 Data Collection and Data Processing

We incorporated twelve distinct business rankings from both domestic Vietnamese and international sources to create an assessment of Vietnamese company performance. This study defines "business" broadly to encompass independent legal entities, market presence, and organizational scale. This approach recognizes that for stakeholders like job seekers and recruiters, prominent brands in some cases may function as direct employers with market influence exceeding their parent corporations. Therefore, the selection criteria prioritized rankings that included Vietnamese corporate entities and high-value brands, maintained transparent methodologies, represented diverse evaluation perspectives, and provided current or recent assessments of business performance. The study collected data on 229 Vietnamese companies, ensuring comprehensive coverage of major enterprises across multiple sectors. The rankings and criteria are as follows:

- Forbes (2012, 2024): Domestic listings[1,2]
- Fortune: Largest companies[3]
- CEOWorld: Market capitalization[4]
- Brandirectory (2023, 2024): Brand value[5]
- VNR500: Best companies in Vietnam[6]
- VIX50: Prestigious and effective public companies[7]
- FAST500: Fastest growing enterprises[8]
- PROFIT500 (Public and Private): Most profitable companies (Private and Public)[9]
- CompaniesMarketCap: Market capitalization[10]

Financial and operational data for the three independent variables: total assets, total revenue, and number of employees were sourced from multiple third-party financial databases, including Pitchbook, Crunchbase, Reuters, and direct company disclosures. Direct company sources comprised income statements and balance sheets obtained from companies' official financial disclosures and investor relations materials. We decided to include these variables for further analysis of whether they help predict the total ranking. These measures are widely used indicators of company size, market presence, and organizational scale, making them appropriate parameters to measure businesses' performance. By testing their relationship with rankings, the study evaluates whether external recognition aligns with traditional financial and operational fundamentals.

Data standardization procedures were utilized to ensure consistency across all datasets through multiple systematic approaches. Companies' names were standardized using Ho Chi Minh Stock Exchange (HOSE)

and Hanoi Stock Exchange (HNX) codes, or abbreviations in place of stock code, where applicable, for efficient data joining. VLOOKUP functions were employed to match these standardized names with their corresponding positions across all ranking datasets, ensuring accurate data alignment and preventing mismatched entries. All financial metrics originally reported in Vietnamese Dong (VND) were converted to US Dollars using the exchange rate of 1 USD = 26,000 VND for consistency and international comparability.

Additionally, data cleaning and processing procedures were implemented using both Google Sheets functions and RStudio. Whitespace was trimmed from all text fields, and duplicate entries were identified and removed to maintain data integrity and prevent artificial inflation of company appearances in the composite ranking calculations. Regarding missing data (NAs) in the dataset, the team removes missing values to ensure analysis accuracy. The occurrence of NAs primarily appears for private companies and subsidiaries that do not publicly disclose financial information, representing a limitation acknowledged in the study design.

2.2 Reciprocal Rank Fusion (RRF)

On the market, it is not difficult to find rankings of businesses in Vietnam. However, with the abundance of various types of rankings, both national and international, it becomes difficult to pinpoint exactly where a company actually stands amongst others when one is looking for a quick snapshot. This study aims to address the issue of combining various rankings available in the year 2024 for companies in Vietnam through the Reciprocal Rank Fusion algorithm.

Reciprocal Rank Fusion is an advanced fusion algorithm that merges diverse rankings by assigning specific scores for each variable in a ranking, where one company is in one ranking. It has been recognized as a robust unsupervised rank fusion method that improves ranking quality through integrating various ordering systems. Cormack et al.'s study (2009) demonstrated that RRF consistently outperforms both other ranking fusion methods, such as Condorcet Fuse and CombMNZ, across the TREC datasets, yielding from 4 to 5 percent higher mean average precision on average without requiring parameter tuning.[11] This reliability and simplicity make RRF particularly suitable for integrating diverse business rankings that differ in evaluation criteria and data sources.

The formula can be defined below with the indicated variables:

$$\text{Original RRF}(r) = \sum_{i=1}^{L} \frac{1}{k + \text{rank}_i(r)} \tag{1}$$

where r represents one's ranking placement among the listing. L is the number of rankings combined, and $\text{rank}_i(r)$ is the placement of the variable within the ranking. k is a smoothing constant that allows lower-ranked documents to contribute.

The reasoning behind the team's decision to choose this algorithm was that it allows for the combination of multiple rankings of companies. It will also be useful as we do not have to have rankings of the same relevance criteria, which allows flexibility in combining huge datasets. We applied this equation across all rankings that have been collected for each enterprise within the raw dataset, which was collected previously in Excel. All the companies have been assigned the right HOSE/HNX Code or abbreviations for standardization of names, which assisted in using the SUMIF function in Excel for taking the sum of the same company across all rankings.

We received scores ranging from the highest of 0.1623, which belongs to The Corporation for Financing and Promoting Technology Joint-Stock Company (FPT Corporation), to the lowest of 0.00625 for Van Phu Invest. Although the scores are good enough to be ranked, we realized the limitation of the equation, where the weight of each ranking is treated the same, and there are no differences in score between rankings of different years. In order to improve the accuracy of the RRF scores, the researchers decided to introduce two elements adjusting the accuracy of the ranking to better reflect real-life ranking: Trustworthy scores for each ranking and a time decay penalty term.

2.3 Reciprocal Rank Fusion Adjustments with Individual Weighting and Time Decay

As rankings were combined in various sources, individual weighting of rankings to account for differences in reliability and methodological rigor was crucial to improve RRF. With the rise of incorporating Artificial Intelligence (AI) in determining ranking scores in various fields, such as medical, business, and other fields, due to its ability to rank content with relative consistency to human judgment.[12,13] Recent studies have shown that AI models, especially large language models, have been excellent in supporting exploratory ranking and scoring and even demonstrated a strong correlation between LLM-generated rankings and expert faculty consensus with minimal input from faculty, making them a strong potential for additional support in evaluation and assessment contexts like ranking.[13,14]

In this study, we employed various AI models, such as the GPT-o4 model via ChatGPT, Microsoft Copilot, Gemini 3.5 Flash via Google Gemini, Grok 4 by xAI, and Deepseek-V3 by Deepseek Company, to judge the reputation scores of various rankings proposed, looking at the rankings' reliability, transparency, and any methodological rigor. The weights are treated as a proof of concept to demonstrate the feasibility of incorporating AI-generated scores in business rankings, rather than ground truth. As AI's zero-shot ranking capability has been demonstrated in prior work to reduce annotation pressure in the task of ranking, the scores were generated once with a zero-shot prompt across all LLM models.[13] All LLM-generated scores were reviewed manually by the team, ensuring the model's outputs were justified and aligned with the criteria provided by the rankings and reviewers' criticisms. From there, all scores generated by the five AIs are averaged to produce the final weighted score, avoiding bias from relying on a single AI-generated score and enabling reproducibility in future iterations.

The zero-shot prompt and the scores table can be viewed in Appendix A. The weight w_i represents the average score generated by five independent AI models for enterprise i, calculated as:

$$w_i = \frac{1}{5}\sum_{j=1}^{5} S_{ij} \tag{2}$$

The Individual Weighting Equation with the new weights from w_i for a singular ranking source r of one enterprise i can be calculated as:

$$\text{Weighted RRF}(d) = \sum_{i=1}^{n} \frac{w_i^{(\text{LLM})}}{k + r_i(d)} \tag{3}$$

Additionally, to account for the temporal relevance of a ranking to properly "penalize" rankings that are not up-to-date, we applied the time-decay term $e^{-\lambda \cdot \text{age}_i}$, where:

- λ: Representing the decay constant that determines the penalty severity - Currently set at 1.
- age_i: Measured as the number of years elapsed since the most recent publication or update of that ranking source - How long since the latest ranking that the chosen ranking has been outdated.

This term will be timed with each ranking that is not up-to-date to lessen the weight of that particular score. A larger λ will equate with faster decaying. Therefore, in this study, λ is set to 1 in order to impose a strong penalization on outdated rankings and prioritize recent information. For example, if a ranking source is one year outdated from the rest of the rankings, it can only retain roughly 36.8% (e^{-1}) of its original weight. If the source is two years older, then it would be approximately 13.5% ($e^{-1 \cdot \text{age}_i}$). Consequently, rankings with substantially older publication dates contribute minimally to the final score, reflecting the assumption that older rankings are less representative of current businesses' performance.

Combining both of the updates, the new equation we proposed can be calculated as:

$$\text{Adjusted RRF}(d) = \sum_{i=1}^{n} \frac{w_i^{(\text{LLM})}}{k + r_i(d)}\, e^{-\lambda \cdot \text{age}_i} \tag{4}$$

Benham and Culpepper (2017) highlighted in their study that ranking fusion can enhance mean performance in ranking, but it has a trade-off where aggregating improvement in ranking, as seen in RRF, can potentially mask specific errors or biases that are crucial.[15] Therefore, with the updates, the equation can ensure that the ranking will be most accurate and able to reflect current standing of companies, reflect real-life changes to prevent overlook of errors from aggregation of ranking means, As proven in recent literatures in ranking system using RRF, some literatures have also incorporated new terms or weight to prioritize relevant and recent information in dynamic information, extending rank fusion beyond traditional methods to gain more accuracy.[16,17,18]

3. RESULTS

3.1 Final Adjusted Ranking Outcomes

The final ranking by employing the Adjusted Reciprocal Rank Fusion of 229 internationally recognized businesses out of 12 rankings chosen in Vietnam can be accessed in Appendix B, where there have been changes compared to the original RRF ranking. At the top is The Corporation for Financing and Promoting Technology Joint-Stock Company (FPT Corporation), with both its original ranking of RRF score of 0.16 and adjusted RRF score of 0.10, both placing at number one. On the lower end, Vietnam Container Joint-Stock Company (Vinconship) placed 208th on the previous list, but was moved to the bottom of the new ranking at 229th place with a score of 5.266×10^{-8}. This sudden drop can be accounted for by the adjustments to the RRF ranking, particularly, the huge penalty of time decay due to its single appearance on Forbes 2012, , even when the ranking has an average trustworthy score of 0.90.

Some individuals positively benefited from the adjustments, while some companies are even significantly negatively impacted. National Citizen Commercial Joint Stock Bank (NCB Bank) went from 226th to 208th after the weight and time decay were added to the score. The bank's single appearance on Branddirectory 2023 results in a penalty due to time decay, but at the same time, earning a good weighting support of 0.85 from Branddirectory's scoring, which helps bring the bank back to 208th place, rather than being at the bottom. On the other hand, Phuoc Hoa Rubber Joint-Stock Company has gone from 78th in the original RRF ranking to 204th in the final list, which marks the largest shift among the ranking adjustment differences with a 126-step decrease. This large transition can be explained through the update of the weight and decay term of the ranking the company was in. Phuoc Hoa Rubber Joint-Stock Company was a part of the Forbes Vietnam/PAN Group ranking in 2012 in tenth place. However, with the fact that the ranking has been outdated since 2012, along with the decrease in business performance recently of Phuoc Hoa rubber, proven by a huge profit decrease of -25.76% compared to 2023, leading to its absence from any 2024 ranking. The time decay term input will inevitably make the placement of the company decrease significantly.[19]

Overall, there have been lots of shifts within the list due to changes in the algorithm of Reciprocal Rank Fusion. The changes help reflect the current situation of enterprises in real-life settings, by introducing the weights based on the ranking's trustworthiness through human judgment and the average score given by 5 LLM models, and a time decay term for penalties of companies before 2024.

3.2 Comparison of normal RRF and adjusted RRF

To further assess whether the adjustments can actually improve the ranking, we decided to compare the potential explanatory power between the original RRF score ranking and the adjusted RRF score through two regression models with the same independent variables of Asset, Net revenue, and number of employees. The result of the original RRF is presented in Table 1, and the Adjusted RRF in Table 2, with missing data removed for consistency across models.

The p-value for the model is less than 0.01, indicating that both regression models are statistically significant. The adjusted R-Squared, comparing the adjusted RRF to the original model, has increased from 0.30 to 0.32, showing that the adjusted model captures a higher share of variance associated with real-life business characteristics than the original model. While the improvement in adjusted R-squared explanatory power is slight, the results suggest that incorporating the changes can potentially enhance the alignment between the ranking score and real-life firm-level attributes.

Table 1: Multiple Linear Regression model for Original RRF Score

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	0.02319	0.002555	9.1	1.966e-16
Asset_USD	3.103e-13	1.677e-13	1.9	0.06589
Net_Revenue_USD	5.787e-12	4.103e-12	1.4	0.1602
Number_of_Employees	1.034e-06	1.68e-07	6.2	4.827e-09

Observations	184
R^2	0.3185
Adjusted R^2	0.3072
Residual Std. Error	0.0293 (df = 180)
F Statistic	28.0424^{***} (df = 3; 180)
Note:	*p<0.1; **p<0.05; ***p<0.01

Table 2: Multiple Linear Regression model for Adjusted RRF Score

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	0.01416	0.001802	7.9	3.372e-13
Asset_USD	2.15e-13	1.182e-13	1.8	0.07067
Net_Revenue_USD	4.488e-12	2.893e-12	1.6	0.1225
Number_of_Employees	7.627e-07	1.185e-07	6.4	1.064e-09

Observations	184
R^2	0.3368
Adjusted R^2	0.3257
Residual Std. Error	0.0207 (df = 180)
F Statistic	30.4680^{***} (df = 3; 180)
Note:	*p<0.1; **p<0.05; ***p<0.01

4. DISCUSSION

The Adjusted Reciprocal Rank Fusion algorithm results in a tighter ranking with more restrictions, better reflecting real-life situations, and the ranking of these companies. This tightening effect is visible in the relative positioning of leading firms such as Techcombank and VietinBank at 14th and 15th on the ranking. Both banks stay in high positions in many rankings, such as Fortune, Branddirectory, and Vietnam Report rankings. In the case of Techcombank, its top 14 placement is proven by a pre-tax profit in 2024 of 27.5 trillion VND (approximately 1 billion and fifty-nine million USD) and an increase of 20.3% compared to the results of 2023, having a fast-growing rate through strategies such as utilizing 2.0 technology or brand sponsorship of the reality show "Anh Trai Vuot Ngan Chong Gai".[20,21] VietinBank also has a remarkable growing rate of 27.1% pre-tax profit in 2024, where it focuses more on the Small to Medium Enterprise (SME) sector with the new technology eFAST platform.[22,23] Despite VietinBank's higher growth rate, Techcombank's higher placement in the adjusted ranking may reflect other differences in the business's growth areas during the study period, as captured through aggregation and adjustment of multiple external rankings.

As the ranking was formed using Adjusted Reciprocal Rank Fusion to combine various rankings available, many criteria can influence enterprises' positions on the list, such as revenue, assets, and more. To gain a better understanding of the potential variables that can influence the ranking, the team conducted several statistical tests, including Multiple Linear Regression and Predictive Power Score tests. The target and dependent variable chosen is the final adjusted RRF Score. Factors that are independent variables within the tests are total assets, net revenue, and the number of employees. The study included these variables because they were available and represented potential factors that rule makers, people in the business world,

and job seekers would be most interested in. Labor capacity is also a crucial part to consider for many enterprises; therefore, the number of employees was chosen to be a continuous numerical representation of the organizational capacity of companies to be suited for regression models and predictive power score tests.

We then process the dataset by removing missing values (NAs) and converting variables into numerical values for proper analysis. From there, a Multiple Linear Regression model was developed, utilizing R Studio as presented in Table 2.

Based on the results, the model with adjusted RRF Score as the dependent variable resulted in an Adjusted R-squared of 0.3257, with a statistically significant P-value of less than 0.01 for the model. Variables that are significant in predicting the RRF score, which is where the ranking is based on, are: Number of Employees and Assets in USD. Both have a positive relationship with the score, with net revenue ($P = 0.07$) having less statistical significance than the number of employees ($P < 0.001$). Thus, it shows that the higher the number of employees and net revenue, the higher the ranking, where the predictor variable of total employees is more statistically significant than net revenue.

After regression, the team decided to perform a Predictive Power Score (PPS) test to further support and explain the reliability of the results from the regression model and measure the predictive relations between the RRF ranking score versus other independent variables. The PPS results matrix is shown in Figure 1.

Figure 1: Matrix of PPS Score with Adjusted RRF as target variable and total asset, net revenue, and number of employees as predictors.



Taking Adjusted_RRF_Score as the target, its best predictors in order are: Asset_USD, Net_Profit_Revenue_USD, and Number_of_Employees, with all of the scores in the range of 0.23 to 0.35. This shows that all of the variables that were tested for their prediction power for adjusted RRF have a weak to moderate effect on predicting insight into the ranking based on PPS, but inconsistent linear statistical significance. With the Net_Profit_Revenue_USD variable, however, it is insignificant in the multiple linear regression test but significant in the PPS. This discrepancy can be accounted for by missing values in the net revenue data for companies, and net revenue may have a non-linear positive relationship with the adjusted RRF score - something that linear regression may not capture effectively, but PPS can detect.

5. LIMITATION

The study also has encountered some limitations. Since the study is a proof-of-concept framework rather than a fully ready, adaptable system, it opens to future research in extending and ensuring the robustness analysis of the ranking model. Since the study relies on external ranking sources that do not always distinguish between a parent company and its subsidiaries or brands, it reflects a mixed level of aggregation, which future research can further focus on different segments of business for better ranking accuracy. Another apparent issue is missing data from the testing and building rankings dataset, due to private companies and subsidiaries of businesses not disclosing their exact numbers of revenue, assets, or number of employees for 2024. There are also unclear reports of these metrics, as multiple sources can report different numbers, even with reputable websites such as Pitchbook or the Wall Street Journal. Reasoning for this discrepancy may be that the numbers are self-reported or have not been updated to reflect the right situation of the enterprise. This also raises the potential issue of selection bias, where the dataset for the majority would have full data of publicly listed or larger firms, instead of having more representative data of private companies or subsidiaries due to their unavailability. The relationship between adjusted RRF score and financial indicators may be more reflective of characteristics of publicly available and larger companies, rather than the broader picture of the whole Vietnamese businesses.

As intended in the study, these limitations present opportunities for future research and development. Limitations in accessing lots of private companies or inconsistent data reports of businesses in Vietnam open up opportunities for researchers to collaborate with various businesses, obtaining the right data for research and business advances. By going public, businesses can be more transparent with their current situation and standing, building public trust to welcome more chances in trading, stocks, and being recognized in reliable rankings, opening pathways to international globalization. It can also lessen the limitation of selection bias, enhance representativeness across different business types, and strengthen the reliability of predictive models and ranking systems.

There is also room for future researchers to improve the adjusted RRF by introducing new elements for assessment, such as new weight criteria for ranking, to improve the ranking accuracy. For instance, many companies have been and are offering new artificial intelligence technology training for employees, such as top companies like BIDV, Vingroup, etc, to further enhance their services for the better.[24,25] Consequently, the need for AI training can help research organizations that focus on the field to offer certificates for technology training, opening new opportunities to collaborate between national and international research institutes with businesses in Vietnam. Institutes such as the International Society of Data Scientists, Google, and many more are also offering certification for AI programs, which can be offered to employees, increase credibility internationally, and open new paths to research and businesses for innovation in Vietnam.

6. CONCLUSION

With the intention of developing a comprehensive ranking of businesses in Vietnam for 2024 in order to help job seekers, recruiters, and people who are within the business world understand the standing of their enterprise, the team was able to develop a compact ranking of 12 rankings for 229 businesses. To further enhance the algorithm, the study proposed a proof-of-concept for the Adjusted Reciprocal Rank Fusion ranking, using weights for individual ranking through scores determined by utilizing Large Language Models with human revision, based on the trustworthiness, reputation, and transparency in ranking methodologies. At the same time, a time decay variable has been input to rankings published before 2024, in order to reduce the impact of the RRF scores coming from the outdated data. The placement of companies on the ranking between the original RRF algorithm versus the proposed new adjusted RRF method varies significantly.

As a result, the Corporation for Financing and Promoting Technology Joint-Stock Company (FPT Corporation) takes the first place in both before and after ranking. While in the original RRF score ranking, Van Phu Invest has the lowest score, and for the adjusted RRF ranking, Vietnam Container Joint-Stock Company takes the 229th place. There have also been shifts in other parts of the ranking, with the highest displacement being Phuoc Hoa Rubber Joint-Stock Company, 126 steps down due to the time decay term and its lack of appearance in different lists. On the other hand, Imexpharm Corporation has the highest jump up from 221th to 158th on the final placement due to an increase in weight of the Forbes list, showing

that the amount of appearance in rankings, along with adjustments of penalties for inaccuracies or outdated information, can hugely impact the final output of one's company, either positively or negatively. The restrictions also help with further reflecting better placement based on the company's real-life situation, not only based on ranking numbers.

As the rankings come from different criteria, the study aimed to test potential variables that can help predict the total ranking by combining various sources from the RRF algorithm. Three variables representing total assets, net revenue, and number of employees were chosen to be tested within the study. The results for all three factors showed significant predictive power on the weighted ranking score through the Predictive Power Score test. For Multiple Linear Regression models, total assets and the number of employees have a positive linear weak to moderately significant effect on the ranking score. Although net revenue does have predictive power, it did not have a significant linear relationship with the weighted score, potentially due to noise within the dataset, or the relationship between revenue and the ranking score might not be linear, which the PPS test was able to capture. Nonetheless, the results are a good reference point for assessing variables that might potentially influence the ranking of businesses, proving that asset, revenue, and number of employees are important to consider when determining which business is in good standing.

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APPENDIX A. RANKING WEIGHTS TABLE DETERMINED BY AI MODELS WITH REASONING

AI models: GPT-o4 model via ChatGPT,[26] Microsoft Copilot,[27] Gemini 3.5 Flash via Google Gemini,[28] Grok 4 by xAI,[29] and Deepseek-V3 by Deepseek Company[30]

Prompt used with AI models: You are a truthful evaluator. You are given the following ranking agencies that rank companies in Vietnam. Based on your knowledge, provide a trustworthy weight between 0 and 1 for each of the ranking agencies (the higher the more trustworthy it is): Forbes / Pan Group (Forbes Vietnam); Fortune; CEO World Magazine; Companies Market Cap; Branddirectory (by Brand Finance); VIX50; VNR500; FAST500; PROFIT500 (Public companies); PROFIT500 (Private companies).

The final weight is a total average of all scores given by AI models - represented in bold. The table is ordered by average score.

Table 3: Ranking scores determined by AI Models

Ranking Agency	GPT-o4	Copilot	Gemini	Grok	Deepseek	Average	Reasoning
Fortune	0.85	0.95	0.95	0.92	0.85	**0.904**	Globally credible and methodologically strong, but Fortune does not consistently publish rankings specific to Vietnamese companies, limiting its direct local relevance.
Forbes / Pan Group (Forbes Vietnam)	0.92	0.90	0.90	0.88	0.90	**0.900**	Forbes Vietnam is a respected local franchise of Forbes, known for publishing transparent, audited rankings such as "Top 50 Listed Companies in Vietnam." Pan Group is a local partner, and their collaboration adds local insight and credibility.
Branddirectory (by Brand Finance)	0.80	0.85	0.85	0.85	0.90	**0.850**	Brand Finance is well-known for valuation-based brand rankings. While credible globally, their Vietnamese data can be more limited, but still follows a standardized methodology.
VNR500	0.88	0.80	0.75	0.78	0.85	**0.812**	Published by Vietnam Report JSC in collaboration with local research institutions. Based on revenue and aligned with Fortune 500 methodology, widely cited and respected in Vietnam.
PROFIT500 (Public companies)	0.87	0.80	0.70	0.74	0.80	**0.782**	Recognized in Vietnam for ranking based on profitability. Methodology is published and reviewed by economic experts. Reliable for public firms.
FAST500	0.85	0.75	0.70	0.73	0.85	**0.776**	Also by Vietnam Report, ranks the fastest-growing companies based on revenue growth. Transparent and widely used in Vietnam.
PROFIT500 (Private companies)	0.83	0.78	0.70	0.68	0.75	**0.748**	Similar to the public version, but with more data opacity due to private company disclosures. Still credible within Vietnam's business media and analyst circles.

Table 3: Ranking scores determined by AI Models

Ranking Agency	**GPT-o4**	**Copilot**	**Gemini**	**Grok**	**Deepseek**	**Average**	**Reasoning**
Companies Market Cap	0.70	0.65	0.50	0.82	0.80	**0.694**	Offers real-time market cap data based on stock exchanges. Fairly reliable for public companies, but rankings may lack deeper qualitative insights and are less comprehensive in Vietnam.
VIX50	0.65	0.40	0.70	0.75	0.80	**0.660**	A newer initiative from Vietnam, appears to focus on influential companies, but lacks long-term validation and open methodology, though locally relevant.
CEO World Magazine	0.55	0.50	0.40	0.45	0.65	**0.510**	Known for publishing rankings, but with limited transparency in methodology and unclear vetting for localized markets. Their rankings are often opinion-based or lack citations.

APPENDIX B. FINAL RANKING OF 229 VIETNAMESE BUSINESSES AFTER THE UTILIZATION OF ADJUSTED RRF

Table is in an ascending order based on Adjusted RRF Score and Adjusted Ranking - represented in bold. The table is ordered by adjusted ranking.

Table 4: Final Adjusted RRF Ranking of Vietnamese businesses

Company Name	**Original RRF Score**	**Adjusted RRF Score**	**Ranking**	**Adjusted Ranking**
The Corporation for Financing and Promoting Technology Joint-Stock Company	0.1622930982	**0.10505019437**	1	**1**
Vinamilk	0.158690283	**0.10113715442**	2	**2**
Hoa Phat Group	0.1492091846	**0.10089320626**	3	**3**
BIDV	0.1388728653	**0.09911595222**	4	**4**
Asia Commercial Bank	0.1363937127	**0.09771502394**	5	**5**
VPBank	0.1234632336	**0.08688869577**	8	**6**
Vingroup	0.1350748731	**0.08625442480**	6	**7**
HO CHI MINH CITY DEVELOPMENTCOMMERCIAL BANK	0.1186310774	**0.08306419621**	9	**8**
Sacombank	0.1160805665	**0.08121932102**	12	**9**
MB Bank	0.1242238619	**0.08019970760**	7	**10**
Petrovietnam Gas	0.1158754664	**0.07484755423**	13	**11**
Vietnam commercial Joint-Stock Bank	0.1174984052	**0.07404637588**	10	**12**
Petrolimex	0.09628027838	**0.07349733269**	17	**13**
Techcombank	0.1007517894	**0.07254234330**	15	**14**
Vietinbank	0.1162561251	**0.07222879738**	11	**15**
Masan Group	0.1121032525	**0.06698058912**	14	**16**
Saigon Hanoi Bank	0.09183145086	**0.06659018082**	19	**17**
VIETNAM INTERNATIONAL COMMERCIALBANK	0.09844428266	**0.06657320417**	16	**18**
VietJet Air	0.08731967389	**0.06293508323**	21	**19**
VINCOM RETAIL	0.0896092257	**0.06121910580**	20	**20**
Viettel	0.08280928776	**0.05890367290**	22	**21**
Mobile World Investment	0.08064048683	**0.05877913615**	24	**22**
TPBank (Tien Phong Commercial Joint Stock Bank) TPB.VN	0.08270649555	**0.05698746214**	23	**23**
Refrigeration Electrical Engineering Corporation	0.0932729227	**0.05679852082**	18	**24**
Agribank	0.07629641828	**0.05598243593**	27	**25**
Duc Giang Chemicals Group DGC.VN	0.07536861746	**0.05391257826**	28	**26**
Petrovietnam Oil	0.07271256006	**0.05367487562**	30	**27**
SOUTHEAST ASIA COMMERCIALBANK	0.07913168463	**0.05154191700**	25	**28**
LPBank	0.07119610233	**0.04933981264**	31	**29**
Bao Viet Holdings	0.07767289963	**0.04862918303**	26	**30**
SAIGON BEER - ALCOHOL - BEVERAGE CORPORATION	0.07348460907	**0.04738874193**	29	**31**
Phu Nhuan Jewelry (PNJ) PNJ.VN	0.06950818107	**0.04671641135**	32	**32**
GELEX Group Joint Stock Company GEX.VN	0.06250852196	**0.04420109272**	33	**33**
GEMADEPT CORPORATION	0.0609035143	**0.03960899095**	35	**34**
Vietnam Maritime Commercial Joint Stock Bank MSB.VN	0.0561269956	**0.03837704829**	36	**35**
Vinh Hoan Corporation VHC.VN	0.05250737826	**0.03682839534**	40	**36**

OCB (Orient Commercial Joint Stock Bank) OCB.VN	0.05280574838	**0.03600324558**	39	**37**
VINHOMES	0.06113500027	**0.03590173291**	34	**38**
VNPT	0.05316642121	**0.03553959416**	38	**39**
Binh Son Refining	0.04230249662	**0.03536381982**	50	**40**
Vietnam Airlines	0.05024306272	**0.03509332952**	42	**41**
SSI SECURITIES CORPORATION	0.04737260077	**0.03092321112**	44	**42**
VIGLACERA CORPORATION	0.04987834216	**0.03072428491**	43	**43**
Vinacomin	0.04311904762	**0.03050146600**	48	**44**
Hoa Sen Group Joint-Stock Company	0.05024568239	**0.02995091432**	41	**45**
KDH (Khang Dien House Trading and Investment) KDH.VN	0.04310867294	**0.02850956496**	49	**46**
Digiworld	0.04035448805	**0.02821266279**	51	**47**
Export and Import Bank of Vietnam	0.0537466692	**0.02672079735**	37	**48**
Nam Long	0.03908382066	**0.02633248857**	54	**49**
Airports Corporation of Vietnam	0.03920580734	**0.02632610992**	53	**50**
Samsung Electronics VIETNAM SEVT	0.0322664585	**0.02572417382**	61	**51**
Tay Ninh Bourbon Joint-Stock Company	0.04620543817	**0.02556491524**	45	**52**
Quang Ngai Sugar	0.0378525087	**0.02456310945**	56	**53**
Vinaphone	0.03785044152	**0.02450777572**	57	**54**
KINHBAC CITY DEVELOPMENT HOLDING CORPORATION	0.03939743731	**0.02393925942**	52	**55**
Binh Minh plastics Joint-Stock Company	0.04328654574	**0.02366002303**	47	**56**
PVI Joint-Stock Company	0.04483273318	**0.02275345373**	46	**57**
Hochiminh securities Joint-Stock Company	0.03894495597	**0.02241455713**	55	**58**
VinFast Auto VFS	0.03510726575	**0.02239566635**	59	**59**
Vinpearl	0.03114261168	**0.01986951916**	62	**60**
Nam Kim Steel	0.02730000111	**0.01964962158**	66	**61**
Petrovietnam Exploration Production Corporation	0.02459499264	**0.01954256259**	74	**62**
PetroVietnam Power POW.VN	0.02402745995	**0.01938558352**	77	**63**
VIETTEL Construction	0.02426470588	**0.01883823529**	75	**64**
STELLAPHARM J.V. CO., LTD.	0.02422969188	**0.01853557423**	76	**65**
CMC Corp	0.02616009558	**0.01847529585**	68	**66**
Viettel Post	0.02333469	**0.01836385836**	81	**67**
Truong Hai Auto Corporation	0.02341182913	**0.01828313253**	80	**68**
VIETNAM RUBBER INDUSTRY GROUP -	0.02599156118	**0.01819240506**	70	**69**
IDICO Corp	0.02289377289	**0.01774725275**	84	**70**
PetroVietNam Ca Mau Fertilizer JSC	0.02254305978	**0.01773556231**	86	**71**
VNDIRECT Securities Corporation	0.02107364685	**0.01731410825**	93	**72**
Unilever Vietnam International Company Limited	0.02169833451	**0.01727422003**	90	**73**
Sai Gon VRG Investment Corporation	0.02200193424	**0.01707446809**	87	**74**

PetroVietnam Transports Corporation	0.02159526297	**0.01701149425**	91	**75**
Thien Long Group joint stock corporation	0.03441624528	**0.01688697081**	60	**76**
Nam A Bank	0.02184579439	**0.01665841121**	88	**77**
PTI	0.0232829176	**0.01645152222**	83	**78**
DHG Pharmaceutical Joint-Stock Company	0.03591800357	**0.01642432374**	58	**79**
INVESTMENT AND INDUSTRIAL DEVELOPMENT CORPORATION	0.02668564312	**0.01613022594**	67	**80**
Vietcap Securities VCI.VN	0.0256649309	**0.01578730399**	72	**81**
Tien Phong plastic Joint-Stock Company	0.0296474359	**0.01572120702**	63	**82**
PRUDENTIAL VIETNAM ASSURANCE PRIVATE LIMITED	0.01951637471	**0.01555883473**	97	**83**
Mobifone	0.02615384615	**0.01506673623**	69	**84**
Ha Do Jsc	0.02379232302	**0.01440988201**	79	**85**
POWER GENERATIONCORPORATION 3	0.02146464646	**0.01399747475**	92	**86**
WinMart	0.02285788924	**0.01325331533**	85	**87**
Vietnam Oil and Gas Group	0.01639344262	**0.01281967213**	107	**88**
Binh Thuan Plastic Group	0.01639344262	**0.01272131148**	107	**89**
FPT Digital Retail Joint Stock Company	0.01408450704	**0.01267605634**	126	**90**
HD Securities Corporation	0.01612903226	**0.01251612903**	110	**91**
Tien Phong Securities	0.01587301587	**0.01231746032**	112	**92**
iMedia	0.015625	**0.01212500000**	113	**93**
SOL E&C	0.01538461538	**0.01193846154**	115	**94**
Habeco	0.02098901099	**0.01193623654**	94	**95**
VitaDairy	0.01515151515	**0.01175757576**	118	**96**
TASECO Land	0.01492537313	**0.01158208955**	119	**97**
Co.opmart	0.01961538462	**0.01130005217**	96	**98**
CNCTech	0.01449275362	**0.01124637681**	122	**99**
BEE LOGISTICS CORPORATION	0.01428571429	**0.01108571429**	123	**100**
Novaland	0.0196812596	**0.01095162469**	95	**101**
DGS Logistics	0.01408450704	**0.01092957746**	126	**102**
Petrovietnam fertilizer and chemicals corporation	0.02792120864	**0.01084346127**	64	**103**
LG Electronics Vietnam Haiphong	0.01333333333	**0.01082666667**	139	**104**
TTC Bien Hoa Sugar	0.01878969654	**0.01080487211**	100	**105**
MM Mega Market	0.01889483066	**0.01079293474**	99	**106**
KIS Vietnam Securities Corporation	0.01388888889	**0.01077777778**	130	**107**
BCONS CONSTRUCTION INVESTMENT JOINT STOCK COMPANY	0.01369863014	**0.01063013699**	134	**108**
Petro Times Joint Stock Company	0.01351351351	**0.01048648649**	137	**109**
Kim Tin Trading Limited Liability Company	0.01333333333	**0.01034666667**	139	**110**
CP Vietnam Corporation	0.01265822785	**0.01027848101**	147	**111**
SMC SERVICES AND TECHNICAL JOINT STOCK COMPANY	0.01315789474	**0.01021052632**	142	**112**
Vinatex	0.01780626781	**0.01016030472**	101	**113**

Petrovietnam drilling and well services corporation	0.02328414783	**0.01011242617**	82	**114**
HAI DANG THAI BINH JSC	0.01298701299	**0.01007792208**	143	**115**
PC1	0.01774915574	**0.01006526392**	102	**116**
DOJI Group	0.01234567901	**0.01002469136**	152	**117**
SAO A D.C INVESTMENT JOINT STOCK CORPORATION	0.01282051282	**0.00994871795**	145	**118**
HOANG HUY INVESTMENT FINANCIAL SERVICES JSC	0.01711199944	**0.00983853425**	104	**119**
Vantage Logistics Corporation	0.01265822785	**0.00982278481**	147	**120**
IDICO	0.01722099039	**0.00975327388**	103	**121**
Nano Fortune Electric Corporation (FEC)	0.0125	**0.00970000000**	150	**122**
Dabaco	0.01659779614	**0.00963060610**	105	**123**
Takao Viet Nam Joint Stock Company	0.01234567901	**0.00958024691**	152	**124**
Tuong An Vegetable Oil Joint-Stock Company	0.02784747973	**0.00952752926**	65	**125**
Headway Joint Stock Company	0.01219512195	**0.00946341463**	154	**126**
SGS	0.01655719759	**0.00944170006**	106	**127**
PHUNHUAN CONSTRUCTION AND HOUSING TRADING COMPANY LIMITED	0.01204819277	**0.00934939759**	155	**128**
Hang Xanh Motors Service Joint Stock Company	0.01030927835	**0.00927835052**	185	**129**
LE ANH AGRICULTURAL PRODUCTS ONE MEMBER COMPANY LIMITED	0.0119047619	**0.00923809524**	156	**130**
Kien Long Commercial Bank	0.01615529933	**0.00921685758**	109	**131**
Vicostone	0.01610816406	**0.00913852864**	111	**132**
HOANG GIANG TRADING COMPANY LIMITED	0.01176470588	**0.00912941176**	158	**133**
Sunjin Vina Co., Ltd.	0.01162790698	**0.00902325581**	160	**134**
Danang Rubber Joint Stock Company	0.01	**0.00900000000**	193	**135**
An Gia	0.01538461538	**0.00894382712**	115	**136**
TCE SERVICE AND EQUIPMENT JOINT STOCK COMPANY	0.01149425287	**0.00891954023**	162	**137**
Techcom Securities	0.0119047619	**0.00890476190**	156	**138**
HSBC Vietnam	0.01136363636	**0.00888636364**	164	**139**
DAI VIET STEEL TRADING INVESTMENT JOINT STOCK COMPANY	0.01136363636	**0.00881818182**	164	**140**
Dat Xanh Group	0.01533670232	**0.00880546882**	117	**141**
HEINEKEN VIETNAM BEER AND BEVERAGES LIMITED COMPANY	0.01123595506	**0.00878651685**	167	**142**
Bank for Investment and Development of Vietnam Insurance Joint Stock Corporation	0.009708737864	**0.00873786408**	202	**143**
Minh Tri Steel Structural JSC	0.01123595506	**0.00871910112**	167	**144**
Hoa Binh Corporation	0.0257620938	**0.00868616416**	71	**145**
Hai An Transport And Stevedoring Joint Stock Company	0.009615384615	**0.00865384615**	205	**146**

Cotec construction Joint-Stock Company	0.02504831632	**0.00863457673**	73	**147**
Niigata Vietnam Co., Ltd	0.01111111111	**0.00862222222**	169	**148**
Shinhan Bank Vietnam	0.01098901099	**0.00859340659**	170	**149**
Binh Duong Water - Environment Corporation	0.009523809524	**0.00857142857**	208	**150**
BAO NGOC INVESTMENT PRODUCTION	0.01098901099	**0.00852747253**	170	**151**
State Capital Investment Corporation (SCIC)	0.01086956522	**0.00850000000**	173	**152**
TC Group	0.01041666667	**0.00845833333**	183	**153**
ROX CONS VN	0.01086956522	**0.00843478261**	173	**154**
Thai Minh Pharmaceuticals JSC	0.01075268817	**0.00834408602**	176	**155**
MB Securities Joint Stock Company	0.009259259259	**0.00833333333**	217	**156**
FLC Group	0.01451180399	**0.00829516515**	121	**157**
Imexpharm Corporation	0.009174311927	**0.00825688073**	221	**158**
T&T 159 JOINT STOCK COMPANY	0.01063829787	**0.00825531915**	178	**159**
Intel Products Vietnam Co., Ltd	0.01052631579	**0.00823157895**	181	**160**
Binh Dinh Pharmaceutical and Medical Equipment Joint Stock Company	0.009090909091	**0.00818181818**	223	**161**
PHU MY GROUP JOINT-STOCK COMPANY	0.01052631579	**0.00816842105**	181	**162**
HOANG HA TRADING BUSINESS AND CONSTRUCTION JOINT STOCK COMPANY	0.01041666667	**0.00808333333**	183	**163**
Vicem Ha Tien	0.01410199116	**0.00806477661**	125	**164**
KIDO Group	0.01384232206	**0.00800861379**	132	**165**
VIET THANH PLASTIC TRANDING AND MANUFACTURING JOINT STOCK COMPANY	0.01030927835	**0.00800000000**	185	**166**
Cargill Vietnam	0.009803921569	**0.00796078431**	200	**167**
Ecopark Group Joint Stock Company	0.01063829787	**0.00795744681**	178	**168**
CII	0.01404163394	**0.00792566888**	129	**169**
Sun World Sun Property Sun Hospitality Group	0.01020408163	**0.00791836735**	187	**170**
Suntory PepsiCo Vietnam Beverage Co., Ltd	0.0101010101	**0.00789898990**	190	**171**
National Phytopharma Joint Stock Company	0.009708737864	**0.00788349515**	202	**172**
AN TIN INTER - TRANSPORT JOINT STOCK COMPANY	0.0101010101	**0.00783838384**	190	**173**
Vietnamobile	0.01378232452	**0.00782147965**	133	**174**
KHAI ANH BINH THUAN JOINT STOCK COMPANY	0.009615384615	**0.00780769231**	205	**175**
Thanh Cong	0.01347183162	**0.00777090294**	138	**176**
Pha Lai Thermal Power	0.0136877511	**0.00776910300**	136	**177**
VIET NHAT TECHNOLOGY NUTRITION JOINT STOCK COMPANY	0.01	**0.00776000000**	193	**178**
Manulife (Vietnam) Limited	0.009900990099	**0.00774257426**	197	**179**

BINH MINH TRADING AND MECHANICAL, CONSTRUCTION COMPANY LIMITED	0.009900990099	**0.00768316832**	197	**180**
Rang Dong light source and vacuum flask Company	0.02172891708	**0.00767447446**	89	**181**
Vocarimex	0.01020408163	**0.00763265306**	187	**182**
Thien Phu Si Joint Stock Company	0.009803921569	**0.00760784314**	200	**183**
GEC	0.01316701317	**0.00756153906**	141	**184**
Tex-Giang Joint Stock Company	0.0101010101	**0.00755555556**	190	**185**
KUEHNE + NAGEL COMPANY LIMITED	0.009708737864	**0.00753398058**	202	**186**
BOSTON VIETNAM PHARMACEUTICAL JOINT STOCK COMPANY	0.009615384615	**0.00746153846**	205	**187**
THANH TIN TRADING AND SERVICE CO., LTD.	0.009523809524	**0.00739047619**	208	**188**
VNPAY	0.009090909091	**0.00738181818**	223	**189**
AES Mong Duong Power Company Limited	0.009433962264	**0.00737735849**	211	**190**
DOLPHIN SEA AIR SERVICES CORPORATION	0.009433962264	**0.00732075472**	211	**191**
VIETNAM TECHNOLOGICAL AND COMMERCIALBANK	0.01428571429	**0.00728571429**	123	**192**
LONG AN INTERNATIONAL PORT MANAGEMENT & OPERATIONS JSC.	0.009345794393	**0.00725233645**	215	**193**
Acecook Vietnam Joint Stock Company	0.009259259259	**0.00724074074**	217	**194**
SMARTOSC CORPORATION	0.009259259259	**0.00718518519**	217	**195**
TVT PROSPERITY JOINT STOCK COMPANY	0.009174311927	**0.00711926606**	221	**196**
VIX Securities Joint Stock Company	0.009433962264	**0.00705660377**	211	**197**
DOJI LAND REAL ESTATE INVESTMENT COMPANY LIMITED	0.009090909091	**0.00705454545**	223	**198**
HIM LAM LAND TRADING CORPORATION	0.009345794393	**0.00699065421**	215	**199**
LOF International Dairy Product JSC	0.009259259259	**0.00692592593**	217	**200**
Vietnam Maritime Corporation	0.01	**0.00660000000**	193	**201**
Pan Pacific Joint-Stock Company	0.01924678449	**0.00653470515**	98	**202**
Saigon - Hanoi Securities JSC (SHS)	0.009433962264	**0.00622641509**	211	**203**
Phuoc Hoa rubber Joint-Stock Company	0.02383854802	**0.00616830444**	78	**204**
Vinmec	0.006451612903	**0.00548387097**	227	**205**
Viet Tien	0.006369426752	**0.00541401274**	228	**206**
Van Phu Invest	0.006329113924	**0.00537974684**	229	**207**
National Citizen Commercial Joint Stock Bank	0.007352941176	**0.00229924651**	226	**208**
Drilling Mud Corporation	0.015625	**0.00000008640**	113	**209**
Dong Phu rubber joint stock company	0.01492537313	**0.00000008253**	119	**210**

Petrovietnam Technical Services Corporation	0.01408450704	**0.00000007788**	126	**211**
Son La sugar Joint-Stock Company	0.01388888889	**0.00000007680**	130	**212**
Tay Ninh rubber Joint-Stock Company	0.01369863014	**0.00000007575**	134	**213**
Lamthao fertilizers & chemicals Joint-Stock Company	0.01298701299	**0.00000007182**	143	**214**
FECON Foundation Engineering and Underground Construction Joint-Stock Company	0.01282051282	**0.00000007089**	145	**215**
Petroleum equipment assembly and metal structure Joint-Stock Company	0.01265822785	**0.00000007000**	147	**216**
Traphaco Joint-Stock Company	0.0125	**0.00000006912**	150	**217**
Vietnam – Japan health equipment Joint-Stock Company	0.01176470588	**0.00000006506**	158	**218**
Dinh Vu port development and investment Joint-Stock Company	0.01162790698	**0.00000006430**	160	**219**
Kinh Do Joint-Stock Company	0.01149425287	**0.00000006356**	162	**220**
National seed Joint-Stock Company	0.01136363636	**0.00000006284**	164	**221**
Bien Hoa package Joint-Stock Company	0.01098901099	**0.00000006077**	170	**222**
Ocean Hospitality and Services Joint-Stock Company	0.01086956522	**0.00000006011**	173	**223**
An Giang Fisheries Import Export Joint-Stock Company	0.01075268817	**0.00000005946**	176	**224**
Vietnam sun Joint-Stock Company	0.01063829787	**0.00000005883**	178	**225**
Gia Lai cane sugar Thermoelectricity joint stock company	0.01020408163	**0.00000005643**	187	**226**
Garmex Saigon Joint-Stock Company	0.01	**0.00000005530**	193	**227**
Bien Hoa sugar Joint-Stock Company	0.009900990099	**0.00000005475**	197	**228**
Vietnam Container Joint-Stock Company	0.009523809524	**0.00000005266**	208	**229**