



Research on Capital Intensive Management of State Grid Anhui Electric Power Company

Geng Ran-ran^{1,2}, Xiang Ying-wei¹

¹College of Business Administration, Chaohu College, Hefei, China

²International College, Christine University, Manila, Philippines

Email address:

1004625114@qq.com (Geng Ran-ran), 2321003342@qq.com (Xiang Ying-wei)

To cite this article:

Geng Ran-ran, Xiang Ying-wei. Research on Capital Intensive Management of State Grid Anhui Electric Power Company. *International Journal of Economics, Finance and Management Sciences*. Vol. 10, No. 6, 2022, pp. 348-355. doi: 10.11648/j.ijefm.20221006.16

Received: September 19, 2022; **Accepted:** November 12, 2022; **Published:** November 29, 2022

Abstract: Scientific and reasonable fund management is the key to the internal control and management of power grid enterprises, which can improve the efficiency and efficiency of the use of funds, and solve the problems of many accounts, idle funds and weak fund internal control and management. This paper takes the State Grid Anhui Electric Power Company as an example, studies the current situation and problems of its fund intensive management, and puts forward targeted countermeasures to provide a reference for the fund management of power grid enterprises. Research believes that the capital intensive management of State Grid Anhui Electric Power Company needs to optimize the payment and payment path, lack of cash flow management, unscientific capital budget management, and capital risk control system needs to be improved. Optimizing account collection and payment management, realizing "daily cash flow scheduling", optimizing fund budget management and other intensive fund management improvement measures of State Grid Anhui Electric Power Company are proposed. Intensive fund management mode can not only improve the production and operation efficiency of power grid enterprises, reduce costs, but also enhance the industry competitiveness of enterprises. With the continuous increase of the scope and scale of the power grid enterprises, the power grid enterprises should improve the management efficiency, and the implementation of the intensive capital management is the imperative form of the modern development of the industry.

Keywords: State Grid, Anhui Electric Power, Capital Intensive, Management

1. Introduction

Power grid enterprises are capital-intensive enterprises, faced with huge cash flow and investment and financing scale. How to ensure the safety of funds and effectively improve the efficiency of capital operation has become a severe task faced by the current power grid enterprises. As an important part of the development strategy of "three sets and five major enterprises" of power grid enterprises, capital intensification can effectively improve the efficiency of capital resource allocation of power grid enterprises, improve the unified dispatching ability of funds, reduce the cost of financing and capital use, and realize the benefit of capital scale. At present, there are some problems in the intensive capital management of power grid enterprises, such as the large total number of bank accounts, insufficient management ability, poor capital budget ability and relatively

weak risk control links. Therefore, enterprises should adopt the appropriate capital management mode to avoid risks. Andrei (2011) research pointed out that the centralized management of funds is the best means to enable the parent company of the group to fully understand the cash status of its subsidiaries [1]. Cheng Ping and Jiang Yu combined with the technical characteristics of big data and cloud accounting to build the framework model, and elaborated on the management modules such as fund allocation, collection and payment, analysis and assessment [2]. Jiang Yanjun discussed how to better use and learn from the Internet financial management and the third-party payment platform to achieve the benefit improvement of centralized fund management under the "Internet +".

2. Present Situation of Fund Intensive Management in Anhui Province's Power Company

2.1. Unified Account Management

In accordance with the principle of unified deployment and management, the accounts of the State Grid Anhui province were under unified management. When opening, changing and withdrawing the accounts of each company, they had to report to the capital management center of the company for recording or approval. They had to open and manage the corresponding accounts according to the principle of "two lines of revenue and expenditure". The accounts were divided into income accounts and expenditure accounts. The main source of income from the bank account was the electricity charge. At the beginning of 2017, Anhui province's electricity company adopted the policy of "one in a city, one in a row" and cancelled all the electricity bills accounts of all the companies in the county. The municipal companies would open an account and be responsible for the summary of the capital of the electricity income. The number of the electricity accounts was reduced from 357 to 16. The spending account would only be paid, but not received, forming a level two capital pool account of "province city". The Anhui province power company was responsible for making the security payment amount. When there was a expenditure within the reserve amount, the superior financial management center would distribute the money to the capital pool accounts of the companies in the city and county in time to ensure that they could complete the payment business.

2.2. Timely Collection of Funds

The real-time collection of funds was an important step in the intensive management of funds, which could improve the efficiency of use of funds [3]. After the "one city, one family" policy was implemented in Anhui Province, all the municipal and county level companies relied on the financial settlement system of the commercial bank to collect the electricity income in a horizontal and vertical way. In other words, when a company at the county level earned money from electricity, it would be gathered to the account for electricity of its city company in time, and then the city company would be gathered to the account for electricity of its province company in a unified way. In this way, the level management of the account would be achieved, and the money for electricity would be reasonable, effective and safely handed over to the power company of Anhui province.

2.3. Unified Budget of Capital and Expenditure

According to the rules of Anhui province's power company, all the capital spending of the city and county companies must be included in the budget management of their own companies, and they must achieve "no budget no spending, no over budget", to strengthen the restraint of the budget on the company's spending. From 20 days to 25 days a month, the

municipal and county companies would hold a joint meeting of budget and index. The business departments of the companies would sort out the main core business and the annual key work plan of their departments based on the reference standard of the budget issued by the financial department, and then classified them according to their priorities. They would reasonably divide the capital expenditure into the corresponding work categories, and control the capital through the budget means, To avoid the appearance of over budget or no budget.

2.4. Multiple Payment

The internal examination and approval system of capital for the State Grid Anhui province had been set up. The payment system was broken down based on the amount of money. The power supply companies of all cities and county handled the payment business according to the procedure of "plan application - payment approval - payment double check - payment". The capital project expenses must be signed by the three parties, including the person in charge, the department leader and the leader in charge. At the same time, the capital project expenses with a single amount of more than 30000 need to be signed and authorized by the general manager of the company. The expenses must be signed by the person in charge, the leader of the Department and the leader of the branch. At the same time, the expenses with an amount of more than 3000 yuan need to be signed and authorized by the general manager of the company, so as to ensure that the capital payment is within a reasonable Authority (see Table 1).

Table 1. Power supply company of Anhui Province on State Grid.

Expenses	
money	Authorized person
<3000	The person in charge, the director of the Department, the leader in charge, and the director of the financial department
>3000	The person in charge, the director of the Department, the leader in charge, the director of the financial department and the general manager
Capital expenditure money	Authorized person
<30000	The person in charge, the director of the Department, the leader in charge, and the director of the financial department
>30000	The person in charge, the director of the Department, the leader in charge, the director of the financial department and the general manager

2.5. Cash Flow Budget Management

The budget management played an important role in the realization of the capital concentration. The scientific and reasonable budget management could improve the efficiency of the company's capital use and speed up the process of capital concentration [4]. According to the unified requirements of Anhui province's power company, the power companies of every city and county in Anhui province should establish a three-dimensional budget system of every year, season and month, and implement the system of financial summary, level by level reporting, review and release, and follow the rules. According to the annual budget, they should make a reasonable budget for the collection and expenditure

of the cash flow, and achieve the full range and full process management of the cash flow of every season and month. This was also an important step in the intensive management of funds. The annual budget process of the power companies in all cities and county of Anhui province (see Figure 1), namely, the power companies in all cities and county of Anhui province will take over the annual budget preparation tasks and make the budget according to the requirements. The marketing department will make the electricity charge income budget, and other business departments will make the expenditure budget. After the preparation is completed, it will

be reported to the provincial counterparts, and then the provincial business department will submit the summary information to the financial department of the provincial company. The financial department will collect the summary information and submit it to the headquarters of the state Internet for approval. After the review and approval, all cities and county companies would carry out the implementation according to the approved budget. In the process of implementation, the financial departments at all levels were responsible for the supervision, evaluation, and improvement.

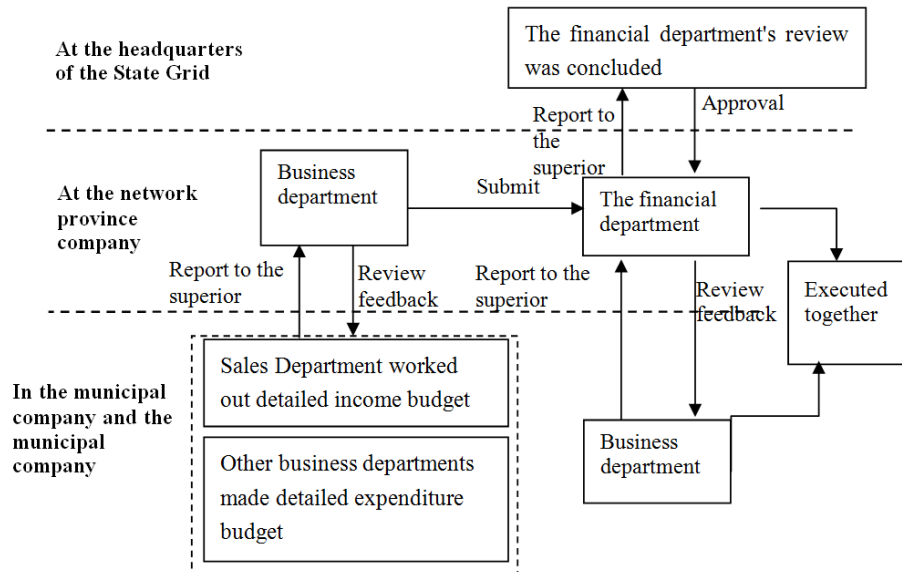


Figure 1. Annual budget of Anhui province's power company.

3. Problems in Fund Intensive Management of State Grid Anhui Electric Power Company

3.1. The Collection and Payment Routes Need to Be Optimized

The traditional collection path of electric charge collection of State Grid Anhui Electric Power Company is "county city province" collection. Since the company implemented the policy of "one city, one bank, one household" in 2017, the county level electric charge account has been canceled, and the collection path of electric charge has changed to "city province" collection, that is, when electric charge income is generated, the funds directly enter the electric charge account of the city company, and then timely collect to the electric charge account of the provincial company. Although the "city province" collection has improved the efficiency compared with the traditional "county city province" collection, the "city province" collection method is still not flat enough, the collection path needs to be further shortened, and the fund collection efficiency can be further improved. At present, according to the overall deployment requirements of the State Grid Electric Power Company, Anhui Electric Power

Company has set up a "provincial city and county" secondary payment account. Relying on the integrated information technology platform of the State Grid Electric Power Company and the capital network settlement system of commercial banks, it settles the required payment funds in the capital pool. However, this payment method is not flat enough, and the payment efficiency needs to be further improved.

3.2. Lack of Cash Flow Management

The lack of cash flow management of State Grid Anhui Electric Power Company is mainly manifested in two aspects: first, cash flow management is limited to the surface of the operation level. The cash flow management of State Grid Anhui Electric Power Company is only limited to cash budget, daily cash income and daily cash expenditure, and the three are relatively independent, let alone organically combine to form a set of systematic management methods. State Grid Anhui Electric Power Company implements the management principle of "two lines of revenue and expenditure", centralizes the settlement of accounting business, and completes the centralized payment of funds. However, the two lines of revenue and expenditure are relatively isolated, and the inflow and outflow of funds are not reasonably predicted and matched. When the revenue of the day is greater than the expenditure, it will lead to idle and waste of funds. When the revenue of the

day is less than the expenditure, it needs to finance, which increases the company's capital cost. It affects the company's profits. Second, cash inflow and outflow management is based on "month", which is not detailed enough. At present, the State Grid Anhui Electric Power Company manages the cash flow on a monthly basis, but lacks specific management plans and control measures, which are mainly reflected in the following aspects: First, in terms of cash inflow, the company's marketing department manages the current month's electricity charge with the goal of completing the last month's electricity charge budget, does not manage any electricity charge income at the beginning and middle of the month, and conducts strong manual intervention at the end of the month according to the actual electricity charge and budget differences. For example, if the actual electricity charge received is far lower than the budget of this month and the set goal cannot be achieved, the company's marketing department will negotiate with large electricity users to make them pay and deposit the electricity charge of the next month in advance. If the actual electricity charge at the end of the month is greater than the budget of this month, the marketing department of the company will negotiate with the major electricity users to make them pay the electricity charge in the next month, so as to ensure the completion of the monthly budget target of electricity charge and pass the corresponding assessment of the unit. 2. In terms of cash outflows, companies in cities and counties have extensive management over payment orders. Business departments can only complete payment of payment orders within a month. There are no clear regulations and restrictions on the specific payment time within a month, which directly leads to a serious backlog of orders in business departments. The financial department has a huge pressure on the payment of orders at the end of the month, which is not conducive to the overall scheduling of funds.

3.3. Unscientific Fund Budget Management

The budget management of State Grid Anhui Electric Power Company is unscientific, which is embodied in the following three aspects: First, the awareness of budget preparation is weak. The business department of State Grid Anhui Electric Power Company has insufficient understanding of the importance of capital budget preparation. When preparing the budget, it mostly focuses on finance, and believes that budget preparation is the work of the financial department, ignoring its main role. As a result, the participation and enthusiasm of each business department were not high when preparing the budget, the communication and cooperation between companies and departments were lacking, and the cost of each link in the company's value chain was not understood. Second, the budget preparation method is unreasonable. At present, business departments mainly adopt fixed and regular budget methods. They do not know enough about flexible budget, rolling budget and other preparation methods, and do not use them in actual work. Third, the budget implementation is insufficient. Budget implementation management is the key link of budget implementation. State Grid Anhui Electric Power Company established a special budget management committee to ensure budget

implementation, but the budget implementation is not strong. Unauthorized changes to the budget, expansion of budget items, over budget expenditures and other phenomena occur from time to time, resulting in significant deviation between the actual payment amount and the capital expenditure budget. At the same time, the financial department, as the supervision and assessment department of the budget implementation of each business department, also lacks the necessary support and fails to play its role of constraint and supervision.

3.4. The Capital Risk Control System Needs to Be Improved

Capital security is an important guarantee for the successful implementation of capital intensive management [5]. Since the State Grid Anhui Electric Power Company implemented financial intensive management, the use efficiency of funds has been greatly improved, the daily management of funds has been more refined, and the security of funds has been strengthened. However, the following risks still exist in the actual operation of funds: First, the internal control is weak, and there are risks in fund payment. Internal suppliers can add their specific payment information in the financial control system by each business department. Relying on the external commercial bank settlement platform, they can make electronic payments to suppliers in the financial control system according to the payment application form. To this end, internal control procedures such as the operator, business process, payment limit, and approval authority of electronic payment are defined. However, in this process, in order to save time and complete the work as soon as possible, when the approver is on business trip or asking for leave, the phenomenon of "one person for the job" and "one secret for all" often occurs. The supervision of funds is greatly reduced, which is very easy to cause fund security problems. At the same time, each business department did not strictly review the credit status of suppliers, which easily led to the problem that the company paid according to the contract progress, but the suppliers failed to supply goods in time. In addition, business departments may repeatedly attach orders, resulting in repeated payments and posing a serious threat to the security of the company's funds. Second, the supervision of external funds is not strict. Fund intensification is realized through the "fund pool" model. The most prominent feature of the "fund pool" model is to establish a cooperative relationship with external banks, and use the powerful fund settlement system of external banks to timely collect and allocate internal funds for unified settlement. This can improve the operation efficiency of funds, but the involvement of external banks may cause the disclosure of business sensitive information of enterprises. In addition, the State Grid Anhui Electric Power Company has a large number of banks cooperating with companies in various cities and counties, and there is a positive relationship between the number of bank interfaces and the potential risks of enterprises. State Grid Anhui Electric Power Company lacks a complete set of capital risk prevention and control system to predict risks in advance, control risks in the process and deal with risks afterwards, and lacks relevant internal control system.

4. Improvement Measures for Capital Intensive Management of State Grid Anhui Electric Power Company

4.1. Optimize Account Collection and Payment Management

The electricity charge collection account is centralized at the provincial level. Anhui Electric Power Company has set up a national and provincial unified electricity charge account in the cooperative bank, and canceled the municipal and county electricity charge accounts. There is no need to transition the income of electricity charge funds at all levels, which directly flows into the provincial electricity charge accounts, and the provincial electricity charge is collected centrally, so as to achieve the shortest path for electricity charge collection and the best time efficiency for capital collection. The payment account is centralized at the provincial level. The account system was compressed and adjusted, a provincial direct payment account was set up uniformly, and all city and county company accounts were canceled. Specifically, the front-end business process remains unchanged. In the payment stage, after all payment businesses are collected to the provincial company, the provincial company will sort the fund payment sequence according to the fund status, order type, and payment principle, and make relevant payments in accordance with the sequence. Realize the change of payment account from "secondary account and secondary payment" to "primary account and primary payment", and promote more intensive account and more efficient payment. At the same time, we should also strengthen

capital intensive management and improve the level of control.

4.2. Cash Flow Realizes "Daily Scheduling"

The problems in cash flow are mainly shown in the two aspects: the management of cash flow remains at the superficial level of capital operation and the management of cash flow is not detailed enough. According to the existing cash flow management model, combined with the existing problems, the following aspects can be improved.

4.2.1. Establish Collection Settlement Pool and Payment Settlement Pool

Based on the details of accounts receivable, contract collection terms, orders and other information, various types of estimated collection information are obtained, and the time sequence of fund collection is estimated according to time, amount, collection progress proportion, payment nature, and collection method to form a collection settlement pool. Based on contract payment terms, budget application, business reimbursement, payment application and other information, various types of estimated payment information are obtained, and a payment settlement pool is formed according to the sequence of rigid payment, monthly payment, deferred payment, and estimated fund payment (see Figure 2). By strengthening the accounting supervision of accounts receivable and accounts payable, we can achieve strong correlation among accounting confirmation, budgeting, and fund payment, and establish a business wide, end-to-end business financial integration scheme. After all business events are reviewed, they are pooled first and then scheduled [6, 7].

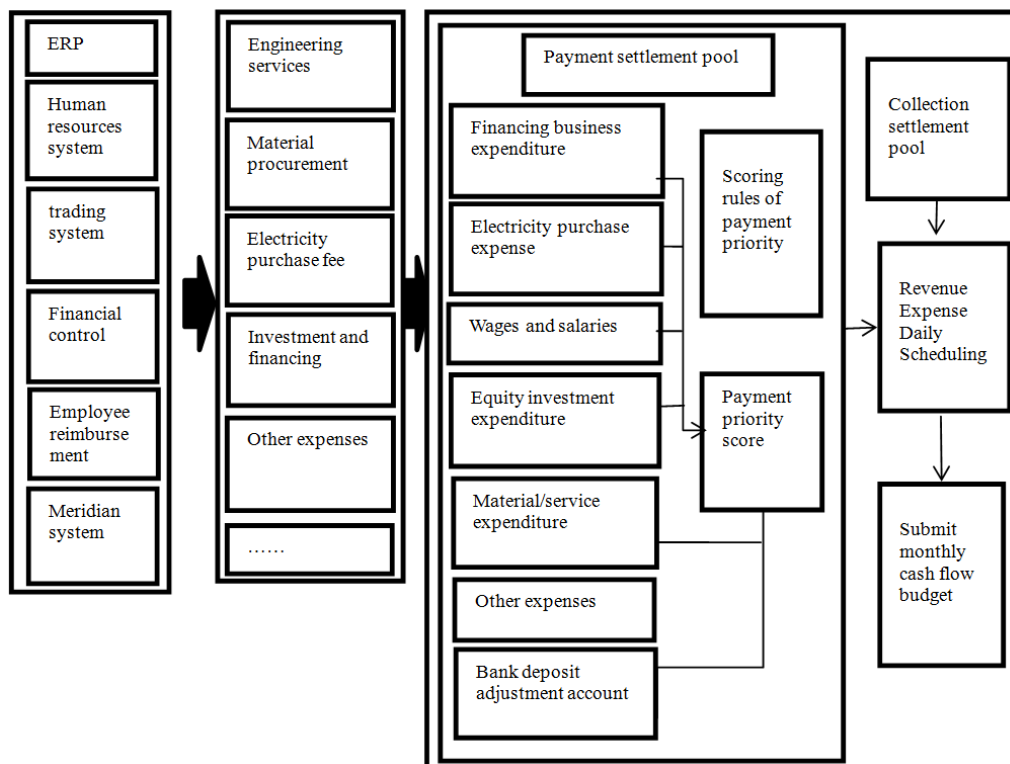


Figure 2. Construction of Collection and Payment Settlement Pool of State Grid Anhui Electric Power Company.

4.2.2. Import Payment Order Lifecycle Management

According to the requirements of the whole process management of fund payment, the concept of life-cycle management of payment orders is introduced, and the order integration management of monthly budget application, business reimbursement and payment application is implemented [8]. A payment application form is created for each business payment application to record financial and business information. Through the high integration and information sharing between the financial control system and the business system, the association between financial accounting and business accounting is established to achieve the penetration query and full display of payment order business information, strengthen the process control responsibility of front-end business, enhance the awareness and sense of responsibility of the business side, simplify the redundant links in the process, and comprehensively improve the business handling efficiency and management level [9].

4.2.3. Implement Daily Scheduling of Cash Flow Budget

According to the collection and payment business information in the payment settlement pool and the collection settlement pool, the revenue side forms the fund collection timing schedule according to the estimated collection time (electricity revenue simulates the inflow curve according to the historical recovery) [10, 11]. In terms of expenditure, payment priority is determined according to the urgency of payment (rigid payment, payment within a month, deferred payment) and scoring rules. Except that the rigid payment date cannot be adjusted, other payment businesses determine the specific payment date in combination with the capital stock and the minimum reserve amount, so that each payment business can be settled based on the existing capital stock and future revenue, reasonably predict the capital revenue and expenditure gap, and optimize the external financing structure, Further reduce financing costs (see Figure 3).

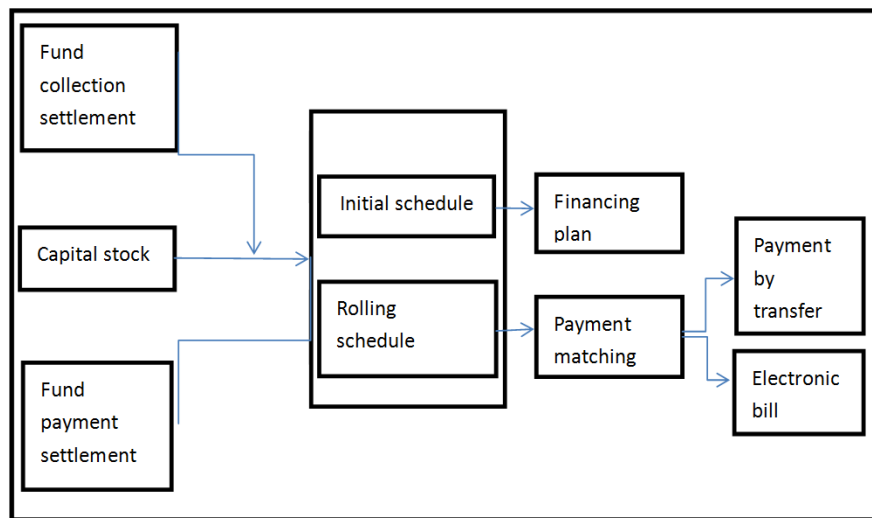


Figure 3. Daily schedule of funds of State Grid Anhui Electric Power Company.

4.3. Fund Budget Management Optimization Scheme

4.3.1. Strengthen Training, Actively Explore and Constantly Improve the Level of Budget Preparation

To strengthen the professional knowledge training for budget preparation personnel, it is not only necessary to master the relevant theoretical knowledge, find out the budget preparation method suitable for the unit and industry, improve the budget preparation level, but also should be familiar with each production and operation link of the company, strengthen the communication with other departments, if necessary, take the temporary job training of the production line into consideration, and actively study and solve new situations and problems, Ensure the accuracy of budget preparation [12, 13].

4.3.2. Business Before Finance, Work Division and Cooperation, and Strengthen Assessment

We should follow the principle of "who pays, who does The principle of "who prepares the budget". The business budget is

taken as the basic unit of budgeting, relying on departments, starting from grass-roots units, and actively provides various data in a practical and realistic manner. The situation is clear, the mind is clear, and the budget prepared is well grounded to ensure the rationality, accuracy, and authority of budget preparation [14]. The Company shall issue corresponding management methods to evaluate and assess the budget preparation of each business department. Specifically: First, the timeliness of budgeting. Each city/county company stipulates that all departments should complete their own budget forms in the "financial control system" before the 25th of each month. One day after the deadline, 1 point of the department's performance evaluation in the month will be deducted, which will be accumulated progressively; If the budget preparation has not been completed after the budget unit of the control system is closed, 10 points will be deducted from the performance appraisal of the department in the current month; If the budget preparation is not notified by the provincial company in time, 5 points of the performance

assessment of the relevant department in the current month will be deducted; Second, the accuracy of budget preparation. When the actual project expenditure business occurs, if the budget error is caused by inaccurate budget forecast, and the actual expenditure budget deviation rate exceeds 5%, 2 points will be deducted from the department's performance appraisal in the current month; If the deviation rate of the actual expenditure budget exceeds 10%, 3 points of the department's performance appraisal in the current month will be deducted; if the deviation rate of the actual expenditure budget exceeds 20%, 5 points of the department's performance appraisal in the current month will be deducted. The company entrusts the financial department as the budget assessment management department, and entrusts it to evaluate the monthly budget management work of each business department according to the above assessment criteria. The evaluation results are reported to the company's budget management committee as the reference for the assessment of each department [15].

4.3.3. Solidify Internal Control Rules

In order to ensure the safety control of funds, the company should incorporate internal rules into the whole process of fund payment, and strengthen the prevention of commiseration by means of supplier homology management, supplier blacklist management, suspected repeated payment, and payment authorization control, so as to minimize the risk of enterprise internal payment.

4.3.4. Add Payment Authorization Delegation Function

For business trip or leave of the approve, the delegation authority application is supported. After the approval of the leader in charge, the delegation authority will become effective, and the use of payment by the trustee during the business trip can be queried (see Figure 4), so that the trustee can master the handled situation as a whole. This can improve the payment efficiency, eliminate the phenomenon of "one person working for you" and "one secret for all", and ensure the security of funds.

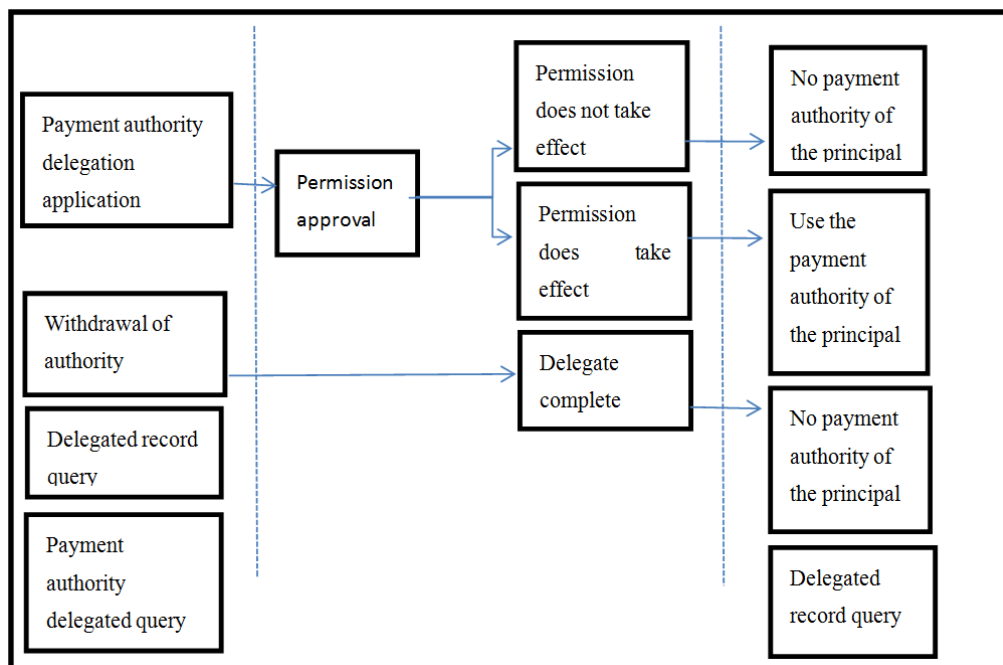


Figure 4. Payment Approval Authority of State Grid Anhui Electric Power Company.

4.3.5. Add Supplier Blacklist

The supplier blacklist is defined in the system. During the blacklist's effective period, that is, the litigation period and the credit deterioration period, payment execution is restricted. The system controls that it is not allowed to initiate matching payment, amplitude approval and send payment instructions. Suppliers included in the blacklist can apply for unfreezing. After unfreezing, normal payment can be made. The blacklist function can strengthen the supervision and management of suppliers and ensure the security of internal funds.

4.3.6. Adding System Alert

For the records of historical applications with the same application company, the same payee, and the same payment

amount within the application date range of 60 days, in the payment application phase, the matching payment phase, and the signature approval phase, the system adds the alert function of suspected repeated payments to reduce the possibility of repeated payments and ensure the security of fund payments.

5. Conclusion

Intensive fund management mode can not only improve the production and operation efficiency of power grid enterprises, reduce costs, but also enhance the industry competitiveness of enterprises. With the continuous increase of the scope and scale of the power grid enterprises, the power grid enterprises should improve the management efficiency, and the

implementation of the intensive capital management is the imperative form of the modern development of the industry.

Acknowledgements

University-level General Scientific research Project in 2019: Research on the PPP Financing Mode of Chaohu Characteristic Town under the Rural Revitalization Strategy (XWY-201912).

University-level Quality Engineering General Project in 2021: Research on Ideological and Political Teaching Reform of Financial Management Course (ch21jxyj17).

References

- [1] Cheng Ping, Jiang Yu. Group enterprise capital management based on cloud accounting in the era of big data [J]. Friends of Accounting, 2015 (10): 134-136.
- [2] Jiang Yanjun. Discussion on enterprise fund Management under "Internet +": Taking Z communication enterprise as the research example [J]. Chief accountant of China, 2015 (12): 51-53.
- [3] Xiao Tieyong. Hunan State-owned Assets Company [J]. Finance and Accounting, 2019 (16): 16-19.
- [4] Yingying Chen. Research on Centralized Fund Management of State Grid Corporation under the Background of Financial Intensive [J]. Modern Economic Information, 2017 (36): 120-121.
- [5] Zhou Jun, Li Shulin, Pang Shengyu. Research on Capital Intensive Management of Power Grid Enterprises [J]. Friends of Accounting, 2011 (4): 9-14.
- [6] Sun Ting. Research on problem analysis and optimization of centralized fund management of State Grid Corporation based on financial intensification [J]. Technology Information, 2015 (7): 123-124.
- [7] Xu Jianxia. Fund intensive management under the network environment [J]. Friends of Accounting, 2013 (4): 46-48.
- [8] Qujing Xin. Optimization analysis of intensive management of operating capital of China Gold Group under the combination of industry and finance [J]. China Chief accountant, 2022: 64-66.
- [9] Chen Mei, Xia Zhuoxiu, the combination of industry and finance and enterprise innovation —— is based on the experience evidence of listed companies controlled by central enterprises [J]. Financial Review, 2019, 11 (02) 81-94, 125.
- [10] Xing Hui, Xia Zhilin, Ma Jia, can the combination of industry and finance correct the enterprise non-efficiency investment?——is based on the enterprise perspective of financial institutions holding stock entities [J]. Financial Development Research, 2021 (12): 45-50.
- [11] Liu Liang, Wang Gang, Deng Xinchun, et al. Analysis of digital and intelligent Treasurer management of Group enterprises [J]. Finance and Accounting, 2019 (13): 60-63.
- [12] Chen Hao. Analysis the role of financial intensive management and the situation of group enterprises [J]. Accounting Research, 2018 (10).
- [13] Xu Wenya. Financial risk control of branch companies based on financial intensive management [J]. Operating Manager, 2019 (24).
- [14] Jie Chen. On the internal monetary capital control risk points and measures of municipal tobacco companies [J]. Business and Trade, 2018 (12).
- [15] Zhu Junsu. Risks and countermeasures existing in the fund management of tobacco commercial grassroots enterprises [J]. Theoretical Research, 2019 (02).

Biography

Geng Ran-ran (1992-), female, Han Nationality, born in Chaohu, Anhui province, lecturer, doctoral student, research direction: Financial management.

Xiang Ying-wei (2000-), male, Han Nationality, born in Feidong, Anhui province, undergraduate, student, research direction: Accounting.