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**ENHANCEMENT OF COMPANY LIQUIDITY AND SOLVENCY
ANALYSIS BASED ON ECONOMIC AND MATHEMATICAL MODELS’
APPLICATIONS**

Annotation: The article considers the aspects of increasing the company's liquidity and payments through the use of economic and mathematical models. Some recommendations are given for increasing the utilization rate of funds, increasing the company's solvency.

Key words: cash flow, operating activities, short-term loans, capital, assets, liabilities, rate of funds, bankruptcy, solvency, profitability.

In recent years, the economic situation at home and abroad has been turbulent, and the global economy has faced multiple pressures under the influence of the epidemic. Huawei Investment & Holding Co., Ltd. (hereinafter referred to as Huawei for easy reading), as the world's largest supplier of communications equipment, has entered a new stage of development.

As of the end of 2019, Huawei's cash flow from operating activities totaled RMB 91,384 million, an increase of 22.5% from RMB 74,659 million at the end of 2018. The cash flow from operating activities this year has increased,

which shows that Huawei maintains its working capital. In order to achieve a healthy cash flow and a stable capital structure. However, cash and short-term loans totaled RMB 371,040 million, an increase of 39.6% from RMB 265,857 million at the end of 2018. It can be seen that Huawei's long-term and short-term borrowings in 2019 have increased significantly year-on-year, which is a financial data signal worth warning. Huawei's management of cash capital and assets and liabilities is not very complete.

It is recommended to improve the liquidity asset structure of the company, use the capital structure and short-term liquidity planning and budget forecasting system to evaluate and forecast the company's medium and long-term capital needs and short-term capital gaps to ensure the financial needs of the company's business development, including maintaining a good capital structure and Financial flexibility. At the same time, when using the asset-liability ratio to make borrowing decisions, fully estimate the expected profits and possible risks, weigh the profits and losses between the two, and implement effective capital planning and centralized management.

Below are the following financial recommendations:

1) Increase the utilization rate of funds. First, implement centralized and unified management of funds, adopt unified procurement, and unified dispatch of funds. Second, take advantage of the positive effects of financial leverage and presuppose that the cost of capital and the company's ability to repay are lower than the return on borrowed funds. Third, the prerequisite for maintaining

normal business operations is cash flow. Huawei needs to be aware of the cash situation.

2) Enhance solvency. Huawei needs to increase profitability and cash flow levels, broaden the market, improve quality, reduce costs, reduce inventory, appropriate repayment methods, grasp the expected time for fund recovery and payment, and keep financial information intact.

The unstable financial situation means that the risk of corporate bankruptcy may occur at any time. In order to avoid bankruptcy, Huawei must do a good job of early warning of bankruptcy. For example, for analysis, use univariate and multivariate models (Altman's «Z-score model») for bankruptcy early warning (financial early warning).

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