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Strategic Decision-Making and Performance Evaluation in the SIM ERP Simulation Game: Insights into Marketing, Finance, and Operations Management

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Abstract: Within the context of the SIM ERP simulation game, this report provides an analysis of the author's experiences and decisions, with a particular emphasis on the strategic decisions the author took in the areas of marketing, financial management, and manufacturing, as well as an evaluation of the influence those choices had on the overall success of the company. Among the important factors that are investigated in this study are marketing techniques such as budget allocation and market segmentation, as well as financial decision-making, which encompasses plans for loan repayment and liquidity management. In addition, the report provides a reflection on the lessons that were learned from mistakes, such as overly aggressive production planning and inadequate communication between departments. In the context of strategic management, the findings emphasize the significance of making decisions based on evidence, being flexible, and exercising financial restraint respectively. Through the use of the simulation, the necessity of continuously evaluating and adjusting plans in response to changing market conditions was brought to light even more. The conclusion of this analysis is that it offers useful insights into the difficulties of corporate decision-making and provides guidance for improving future strategic planning in business contexts that are comparable to those that have been examined.

Keywords: Marketing; SIM ERP simulation game; Financial operations management

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1. Introduction

An immersive atmosphere was created by the SIM ERP simulation game to model real-world business management. This business management simulation required players to make important decisions across a variety of functions, such as production, marketing, and finance. The purpose of this report is to examine the strategic decisions that the author made during the simulation, with a particular emphasis on how those decisions impacted the success of the organization.

Several important decisions included the management of marketing expenditures, the establishment of product prices, and the maintenance of financial stability through the repayment of loans. In this report, the overall strategy of the game, the decision-making procedures that were utilized, and the lessons that were learned from both successful and poor choices are all detailed throughout.

To get things started, an examination of the initial market conditions and sales data was carried out to provide direction for decisions concerning marketing expenditures and price strategies. Utilizing manufacturing capacities, market demands, and financial commitments, the objective was to find a middle ground between short-term profitability and long-term sustainability. This was accomplished by striking a balance between the two. In the following portions of this report, the study will go into the author's role and strategy in the game, as well as conduct an in-depth analysis of the decision-making process and the results of that process. For the purpose of enhancing future strategic decisions, the reflection on the performance will first emphasize both the author's strengths and faults, and then it will proceed to make recommendations. In the final portion, the study will demonstrate how the simulation helped the author build skills in supply chain management by connecting the experiences the author had during the simulation to the theoretical knowledge gained during the course.

2. SIM ERP simulation game report

This study analyses the author's SIM ERP simulation game experiences and decisions, focusing on the strategic choices and their effects on the company's success. In the next section, the study explains how the game's marketing and finances are managed, including the overall strategy and milestone decisions. The report will also assess the author's performance, stressing the author's advantages and disadvantages and providing guidelines for the next strategic decisions [2].

To guide judgments, the author first examined the initial market and sales data of the game. To guarantee both short-term profitability and long-term survival, the approach included manufacturing, price, marketing, and financial planning. The report will be presented as follows: Introduction and goals are in Parts 1 and 2. The author's involvement and strategies are covered in Part 3. Part 4 describes the decision-making process and round records. The author's performance and lessons are discussed in Part 5. Simulation relates to course content in Part 6. This curriculum helped the author become a supply chain manager, as seen in Part 7.

3. Role description and strategy

The SIM ERP game required the author to handle the company's marketing and finances. Marketing budgets, price plans, and debt repayments were the author's main duties. The author balanced sales growth with long-term financial stability and coordinated with the manufacturing team to optimize output and inventory management [1].

The study applied a flexible and dynamic marketing plan. The author began with meager marketing budgets to see how they would affect various markets. Competitive analysis and sales performance drove the budget to change. The aim was to establish a significant market presence while yet being frugal with money. Changing with rivals and market conditions, the marketing plan likewise altered [2].

Financial management included careful debt repayment to ensure the corporation had enough cash to cover expenses. The company's operating liquidity was protected by "just-in-time" repayment, which was made when cash was surplus. This method sought to preserve a high credit rating and lower long-term interest rates [2].

In summary, the author's duty was to ensure that marketing plans matched production and sales estimates and that financial liquidity supported corporate operations without excessive debt.

4. Decision-making process and specific operations

Throughout the game, the author was tasked with the management of both the financial and marketing aspects [3]. To guarantee the company's liquidity and market competitiveness, a systematic approach to operations was adopted. The following section provides a comprehensive account of the decisions and operations undertaken in both the financial and marketing domains.

4.1. Financial aspects: Borrowing and repayment

In the SIM ERP game, there is no need to borrow money proactively. However, any funds borrowed automatically are reflected in the financial reports. Participants in the game received an initial loan of €8 million at the start [4]. The financial management plan revolved mostly around the repayment of this loan.

The repayment strategy for the loan is as follows. Given the low sales revenue in the initial stages, the cash flow in the bank account was insufficient to repay the entire loan within a short period. A strategy of small, frequent repayments was adopted, whereby a portion of the loan was repaid whenever cash flow allowed, thus ensuring that the bank account maintained a positive cash flow. In practice, the repayment strategy was to repay 5% of sales revenue on a daily basis over a period of five days until the loan was fully repaid. This strategy enabled the company to maintain a stable cash flow and circumvent the potential issue of cash shortages resulting from overly aggressive repayment [5].

The following section will address the pertinent factors influencing credit rating and interest rates. Game credit depends on the payback ability relative to the loan balance. A simple, tiered approach is used by banks to determine credit ratings. After paying off all debts, the greatest credit rating is AAA+ [8]. For net debt under €1 million, the credit grade is AA+. Interest rates and financing expenses depend on the rating. Higher credit scores mean lower loan interest rates and financing costs. The author's goal was to repay loans on time to keep the company's cash flow high and avoid credit deterioration owing to excessive debt.

4.2. Financial operations

Every round, the company's cash situation was evaluated utilizing financial reporting and cash flow forecasting instruments, including the F.01 financial statement and ZFF7B liquidity planning. Regular assessment of these reports guaranteed coverage of operational expenses and loan payback [7].

An oversight in the initial process required equity payback as part of the loan repayment. This action damaged the company's credit rating, making loans difficult. This mistake highlighted the need for financial vigilance.

The following figures show the financial statements and the specific operation pages for debt repayment, increasing conversion time, and increasing production capacity (**Figures 1–4**).

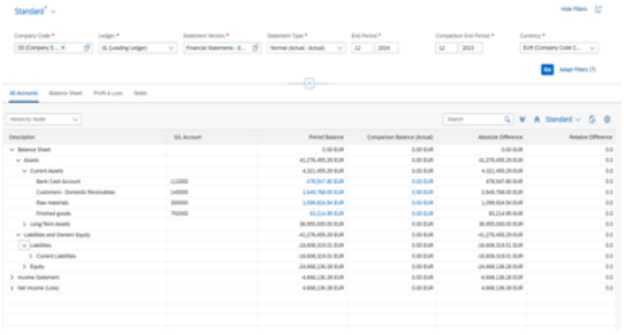

Figure 1. Financial statements

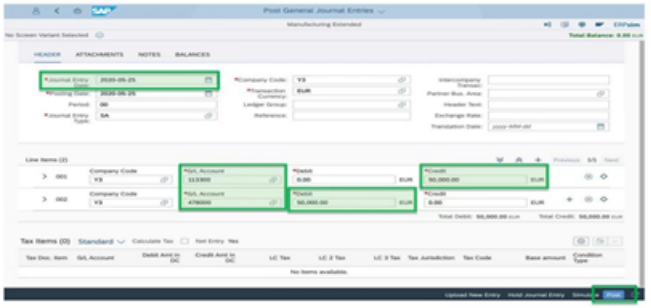

Figure 2. Debt repayment

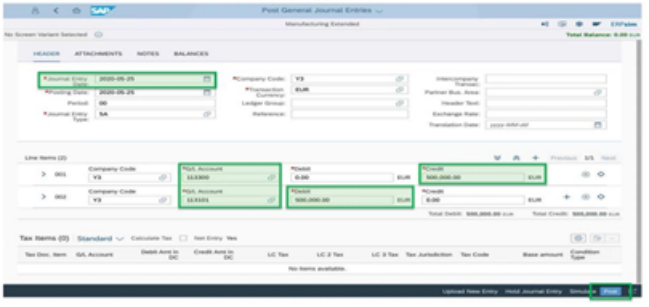

Figure 3. Set up

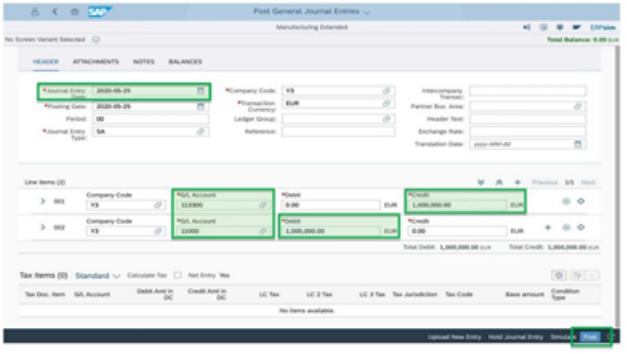

Figure 4. Capacity

4.3. Marketing aspects

4.3.1. Initial testing phase: Gradual investment

To ascertain the optimal marketing strategy, an initial investment was made in smaller amounts. In the initial stages of the marketing campaign, the budget was set at €50–100 per day, with the effects on sales monitored over a period of 2–3 days. This approach permitted an analysis of the impact of marketing on sales without excessive expenditure.

4.3.2. Management of the marketing budget

Using a market-sized budget allocation approach, daily marketing expenditure was limited to 1%–5% of the market size [6]. The budget changed depending on the size of the market (convenience stores, grocery stores, and large supermarkets):

DC12: Grocery Store: around €360,000/week

Convenience Store (DC14) Market: around €12 000/week

Large DC10 Supermarket Market: around €90,000 every week

This information helped to monitor total marketing spending and evaluate investment possibilities across several markets, therefore avoiding the early depletion of funds resulting from too ambitious marketing in the first phases.

The following chart shows the market characteristics of all distribution channels, helping the author make the most appropriate marketing choices (**Figures 5** and **6**).

Table 5.1: Market Characteristics for All Distribution Channels (DC)

HYPERMARKETS (DC 10)	
Geographic Distribution	3 stores in the West 2 stores in the North 7 stores in the South
Approximate Market Revenue	€ 90 000 per manufacturing company per week
Ordering Behavior	Buys 3 products at a time Buys only 1kg products
Payment Behavior	20 days after delivery
Price Sensitivity	Very High
Marketing Effectiveness	Low

Figure 5. The market characteristics of hypermarkets

GROCERY STORES (DC 12)	
Geographic Distribution	17 stores in the West 19 stores in the North 23 stores in the South
Approximate Market Revenue	€ 360 000 per manufacturing company per week
Ordering Behavior	Buys 4 products at a time Buys 500g and 1kg products
Payment Behavior	Between 10 and 20 days after delivery
Price Sensitivity	High
Marketing Effectiveness	Medium
INDEPENDENT GROCERS (DC 14)	
Geographic Distribution	40 stores in the West 45 stores in the North 38 stores in the South
Approximate Market Revenue	€ 120 000 per manufacturing company per week
Ordering Behavior	Buys 1 product at a time Buys only 500g products
Payment Behavior	Between 1 and 20 days after delivery
Price Sensitivity	Medium
Marketing Effectiveness	High

Figure 6. The market characteristics of grocery stores

4.4. Changing investment depending on the reaction of the market

Tracking sales trends and assessing marketing in many regions was made possible by ZMARKET statistics—e.g., total sales and sales income for every product in every region. Sales data guided changes in the marketing budgets for every product and location. Some convenience store products showed great sales potential, according to findings. The market share soared as the budget for this market rose [7]. The analytical process is as follows.

First, use the ZVC2 report to assess sales performance. Comparing the data will reveal the best-performing products per region.

Step 2: Analyze regional and distribution center sales with ZVA05. The data in this study helped the author discover places with stronger product demand, indicating the need for future investment.

Step 3: Compare the ZMARKET market share data to examine sales volume and pricing trends in different regions to modify marketing strategy.

Step 4: Use the ZCK11 report to determine cost and pricing space to keep prices competitive and pay production costs.

Step 5: Forecast cash flow and marketing spending using the ZFF7B liquidity planning tool to keep the marketing

budget within the company's financial capabilities [8].

When adjusting the author's marketing strategy, the author uses sales orders to quickly find the top-selling products in each region and ZVA05 to quickly check the product's sales channels and order volume and implement the best strategy.

Tables 7–9 indicate product sales channels; if DC10, lower marketing investment. The qty data can also help determine safety stock to guarantee each round has merchandise to sell. This tests team members' communication skills, which can boost efficiency.

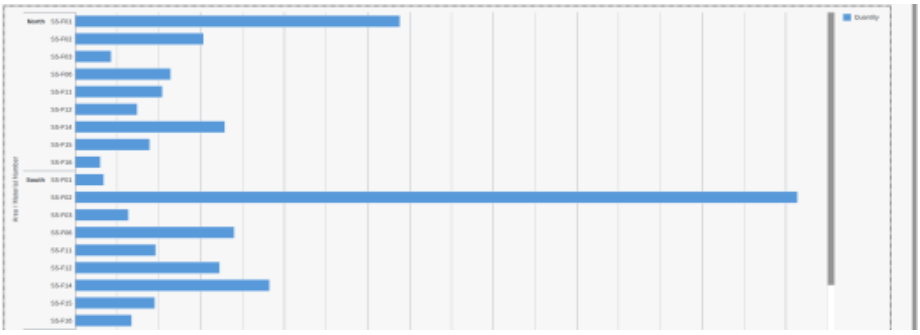

Figure 7. Product sales channels

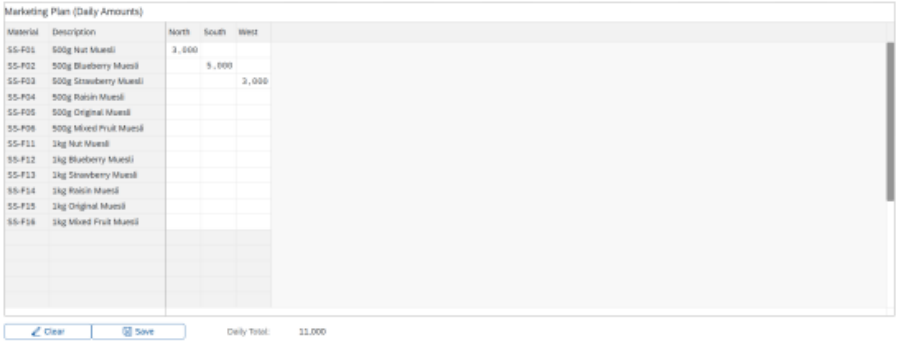

Figure 8. Stock data

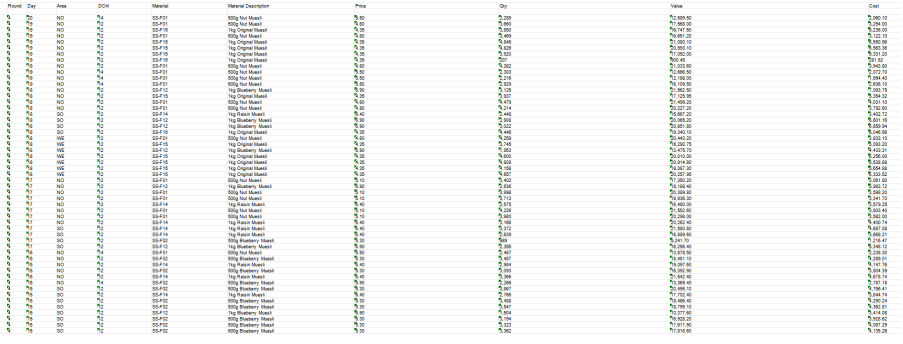

Figure 9. Team member's communication skills

4.5. Marginal effect and adjustment strategy

The game showed that marketing investments had marginal effects. Once a product was established, marketing investment did not enhance sales. It was a resource misallocation [9]. It was vital to avoid excessive investment in

products that had already penetrated markets and reallocate the budget to untapped markets to avoid this issue. This method increased marketing ROI without wasting resources.

Combining a capacity for flexibility with a good decision-making process turned out to be quite helpful. The author constantly changed the marketing budget in line with market data as the game developed, progressively spending more in markets with less competition or more demand. Moreover, regular contact with other team members guarantees that manufacturing and marketing plans complement each other, hence optimizing market share and product visibility.

5. Reflection and evaluation

5.1. Impact of decisions on company performance

The decisions made during the course of the game had a significant impact on the company's performance, both positive and negative. The transition from a make-to-stock (MTS) to a make-to-order (MTO) production strategy resulted in a reduction in inventory accumulation, thereby enhancing cash flow and profit margins. Furthermore, an increase in marketing expenditure resulted in an enhancement of market share, particularly in regions characterized by a paucity of competition. However, missteps, including the repayment of equity instead of debt and the mismanagement of pricing, resulted in a decline in credit rating and sales revenue [10].

Notwithstanding these setbacks, the author contends that the flexible adjustment strategy implemented in subsequent rounds facilitated the company's recovery [11]. It was possible to obtain improved performance in the next rounds by always changing the plans in reaction to sales data, market conditions, and financial situations. The main lessons in financial management are the need for caution while returning loans and the avoidance of too high repayments in uncertain cash flow.

In retrospect, what actions would the author undertake differently? A more cautious approach to inventory and production planning would have been beneficial. In retrospect, it appears that the initial production strategy was excessively aggressive, resulting in an unwarranted accumulation of inventory. A more conservative approach to production in the initial stages of the venture could have circumvented this issue [12].

Early-stage marketing should have seen more aggressive spending. Given the strong initial demand for some products, it would have been wise to increase marketing spending earlier on, especially for things with great future growth potential. A better use of resources in the first phases of the project could have helped to reach a larger market share.

Improved teamwork within departments was another difficulty since poor communication between them led to differences in the production and marketing strategies. Better general performance would have come from more coordinated functional teams.

One of the most challenging aspects of the game was the need to manage the trade-off between short-term profitability and long-term financial stability. The management of cash flow was of paramount importance to achieve an equilibrium between loan repayments and investment in production and marketing. Furthermore, the competitive dynamics between teams resulted in a constantly evolving environment, necessitating the continual adjustment of pricing and marketing strategies [13].

This analysis yields the following main findings: Effective strategic management requires data-driven decision-making. The necessity for data-driven decision-making was the biggest epiphany. The overall performance improved due to informed pricing and marketing modifications made possible by ZMARKET and ZVA05.

Adaptability and responsiveness: The game demonstrated the necessity for flexibility and the capacity to adapt

strategies in response to changing conditions. The efficacy of a given strategy may vary from one round to the next; thus, it is crucial to conduct continuous evaluation and adjustment.

Financial prudence: The game underscored the significance of financial prudence, particularly in the context of loan management. Small, consistent repayments facilitate the maintenance of liquidity without compromising future growth opportunities.

6. ERP knowledge-based decision-making

During the SIM ERP simulation, the course knowledge guided the author in making decisions in marketing and sales, accounting and finance, manufacturing, and materials management.

Using ERP simulation, market segmentation, pricing, and advertising strategies based on marketing course material, sales trends, and market share across product lines and geographies were demonstrated. This made data-driven marketing budget allocation possible to best use resources. For example, budget allocation based on market size-based accuracy of marketing resources by market potential. This approach guarantees market penetration without waste of resources. The author can also modify marketing strategies to fit market trends, competitive dynamics, and demand.

Financial data interpretation and classification in accounting. Ideas in financial management on debt and liquidity inspire the author. Paying on time helps the author to pay off debt while keeping the company's cash flow intact, thus preventing over-indebtedness and sustaining a decent credit score. The accounting module discovered that credit rating and company financing expenses vary depending on loan payback date. Frequent little paybacks kept the business running. Financial statements and cash flow projections offer appropriate plans based on current financial data, therefore lowering the overinvestment risk [14].

Production and materials management modules illuminated the optimal management of these two major domains. The production module made the author think more about inventory management, especially production mode selection. The author switched from "make to stock" (MTS) to "make to order" (MTO), which reduced inventory backlogs, improved market response, and increased cash flow. Production scheduling and materials management expertise allowed adequate production capacity and material acquisition, preventing overproduction and resource waste [15].

7. Key lessons and approach suggestions

A complete simulation analysis yields some valuable lessons for strategic decision-making.

Decisions based on data: The simulation showed that data analysis is essential to decision-making. ZMARKET, ZVA05, and ZFF7B reports help understand market dynamics in real time and alter the strategy plan. This data-driven decision-making method has helped the author comprehend market dynamics and realize the benefits of using data to make decisions. It will also motivate the author to use this evidence-based approach for any future investment decisions.

Strategic decision-making requires adaptability and flexibility. In the simulation, market and corporate financial volatility required the author to adjust the author's plan. This shows how adaptability and flexibility are crucial to strategy creation. In future business decisions, the author will focus more on the need to periodically evaluate and alter strategy to respond quickly to market changes and stay competitive.

Coordination among several departments: The simulation also emphasized interdisciplinary interaction. Sometimes, the departments of marketing, manufacturing, and finance fail to coordinate, therefore wasting resources and producing uneven decisions. Future projects will call for better communication and coordination between other departments to match the team to a shared objective and increase operational effectiveness, therefore avoiding this

problem.

Financial prudence is essential to good management. A cautious financial mindset is increasingly important in financial management. Loan management must address short-term cash flow and long-term financial viability. In the future, the author will balance loan payback and company growth with smart financial management. This requires avoiding excessive debt and supporting the company financially.

The SIM ERP simulation clarified for the author strategic decision-making, cross-functional teamwork, and data analysis in corporate management. From adaptable marketing and sales plans to careful small loan repayments in financial management and sensible inventory control in manufacturing, every choice advances the business toward sustainability and health. This approach helped the author to confirm the author's ERP expertise and spot the author's shortcomings in team communication, resource allocation, and market responsiveness.

Data-driven decision-making will be the first priority; the author will also change with the times and enhance departmental cooperation and communication. Furthermore, influencing the author's future choices will be wise fund utilization and solid financial management. This simulation has helped the author in the profession by clarifying business operations and guiding the author in balancing short-term profitability with long-term stability.

Disclosure statement

The author declares no conflict of interest.

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