PGDM (RM), Batch 2019-21

ERP for Retail Manager

RM-503
Trimester-V, End-Term Examination-December, 2020

Time Allowed 2Hrs. & 30Mins.

SECTION-A **(30 Marks)**
Q1. When does an ERP system is considered as an 'Ideal ERP System'. (10 Marks, CILO-1)

OR

Q1. What are the four common ERP implementation strategies? (10 Marks, CILO-1)

Q2. With relevant points and suitable examples, describe the various factors and sub-factors that determine the success of ERP implementation. (10 Marks, CILO-2)

OR

Q2. Explain the Following: (10 Marks, CILO-2)

a) Reverse logistic
b) Three major challenges of information silos
c) Business blueprinting
d) Source list
e) Condition Master

Q3. What are the typical fields in customer master field? Explain partner functions. (10Marks, CILO-3)

OR

Q3. What are the three important concepts of BPR? Why is BPR needed? (10 Marks, CILO-3)

Section-B, Case Study (20 Marks, CILO-1)

DIET CASE

On November 10, 2014, Sawsane Wazzan was at home debating a very critical operational decision. Wazzan was the executive dietitian, founder, and co-owner of the Diet Center (DC) in Lebanon, a leading Lebanese family business dedicated to nutritional health. She had just finished a long discussion via Skype with Mazen Jabri, the sales manager of Systems, Applications, and Products in Data Processing (SAP) for the Middle East and North Africa region. SAP was a multinational provider of enterprise application software for business management. Jabri had ended the comprehensive consultation by strongly advising Wazzan to implement his company's software, which was an enterprise resource planning (ERP) system. After struggling for many years with unconsolidated operations, untimely financial data, and a mostly unsatisfying bottom line, Wazzan found Jabri's proposal very attractive.

Wazzan was thoroughly convinced of the need to purchase and implement an ERP system; however, many pending questions made the decision difficult. Was it the right time to make such a large investment given Lebanon's unstable political situation and poor economic conditions? Would the benefits exceed the costs? How long and challenging would the transition period be? Would DC survive the unavoidable resistance to this major change? What were other indirect associated costs? How would DC finance the investment?

LEBANON

Located in the Middle East, Lebanon was a very small country. With an area of only 10,452 square kilometres, Lebanon bordered the Mediterranean Sea, Syria, and Israel.

By 2014, most of the estimated 5 million inhabitants of the country lived on or near the coast, in and around the capital city Beirut. Based on the 2011 census, urban dwellers accounted for 87.2 per cent of Lebanon's total population. The 25–54 age group made up the largest segment of the population, at 42.4 per cent, followed by children up to age 14 (22.1 per cent) and young adults aged 15–24 (17.5 per cent). In the largest group (25–54), females outnumbered males by a ratio of 1.07 to 1 (i.e., 906,795 females to 844,217 males).[1] Most of the population was fluent in Arabic, with a literacy rate of 89.6 per cent. French and English were also widely spoken; many people spoke all three languages.

Brief History

For 400 years, Lebanon was under the rule of the Ottoman Empire. Lebanon fell under the authority of France after the empire's collapse following World War I, when France was granted a mandate for both Lebanon and Syria. Lebanon achieved independence from France in 1943. Since that time, Lebanon had experienced social and political instability due to ongoing conflicts between various religious sects and political factions. The country endured a civil war from 1975 to 1990, resulting in approximately 120,000 casualties.

The country's small size and lack of stable basic infrastructure made internal business development difficult. Ongoing post-war conflict also kept Lebanon in an unstable state. The country suffered various major national setbacks, including the assassination of Prime Minister Rafic Hariri in February 2005, an Israeli invasion in July 2006, a large influx of political refugees from the Syrian conflict in 2011, and the economic crisis of 2012. All of these incidents further hindered opportunity and weakened the country's infrastructure by increasing the price of utilities and the general cost of living.

Macroeconomic Overview

Lebanon had a free-market economy and a strong laissez-faire commercial tradition. The Lebanese economy was service-oriented, with banking and tourism as the main growth sectors. In 2015, the country's real gross domestic product (GDP) was low, estimated at US$85.73 billion,[2] with a real growth rate of 2 per cent and a per capita GDP of $18,500. Political unrest slowed economic growth from an average of 8 per cent to 1–2 per cent between 2011 and 2014. In late 2014, the inflation rate was at 1.85 per cent, compared to 6.4 per cent in 2012 and 5.1 per cent in 2011. Lebanon was ranked 187th by the World Health Organization's inflation index that same year.[3]

Obesity and Health Awareness

Between the years 1997 and 2008, the obesity rate in Lebanon increased from 7.3 per cent to 10.9 per cent for children and adolescents (6–19 years), and from 17.4 per cent to 28.2 per cent for adults (20 years and older) due to sedentary lifestyles and increasing demand for fast food, which mushroomed in Lebanon after the civil war. By 2008, the obesity rate was 27.4 per cent and it continued to grow. Obesity was the underlying factor in many chronic diseases, including diabetes and cardiovascular disease, as well as high blood pressure.[4]

Although Lebanon's urban population was fashion, health, and beauty conscious, focus on health and dietary issues was hampered by the country's civil unrest. Health awareness began to increase around 2000 through national television programs that engaged viewers by discussing relevant topics and the growing access to the Internet, which reached 1 million users by 2014.[5]

GLOBAL DIET INDUSTRY

According to the World Health Organization, obesity was expected to affect one in every five adults by 2025. The increase in overweight children and obese adults, and the related health problems, led to the development of a weight loss management industry and market around the world comprising various segments. Some segments within this global industry included the following services and products:

- Weight loss management services (e.g., fitness centres, nutrition and psychological consulting services, and weight loss programs)
- Weight loss diet products (e.g., low-calorie meals and drinks, organic foods, and health-conscious products)
- Weight loss drugs and supplements (e.g., protein shakes, vitamins, and fibre supplements)
- Weight loss equipment and devices (e.g., fitness and surgical equipment)

Within this global industry, numerous companies had established major gains and secured market share, including companies within the following areas of specialization:

- Weight loss diet companies (e.g., Herbalife International, Nutrisystem, Weight Watchers International, and Jenny Craig)
- Weight loss drug companies (e.g., Zydus Cadila Healthcare Limited and Arena Pharmaceuticals, Inc.)
- Weight loss equipment companies (e.g., Medtronic Public Limited Company, Ethicon Inc., and Olympus Corporation)
- Weight loss service provider companies (e.g., Weight Watchers International, VLCC Health Care Limited, Duke Diet and Fitness Center, and Equinox Inc.)

With a compound annual growth rate of 10.9 per cent from 2009–2014, the total global weight loss market was expected to be worth $586.3 billion by 2014.[6]

THE LEBANESE DIET INDUSTRY AND MAIN COMPETITION

In the early 1990s, dieting and healthy living were considered a luxury for most Lebanese people still distraught by the brutal civil war that had lasted for almost 20 years. The only organizations focusing on nutritional health in Lebanon at the time were DC and Health Watchers. DC was one of the first health companies to offer customized meal plans and to provide nutritional consultation and follow-up for any medical condition or fitness goal in the Middle East and North Africa region. The company led the market between 1992 and 2000. According to Wazzan, “The Lebanese were very conscious of living healthy lives. Health trends were developing fast and healthy food was in demand, even amongst younger generations.”

Competition increased in 1996 and grew rapidly in 2000, when the local reality television show *Star Academy* debuted in the region. DC was the exclusive nutritionist for contestants on the show. The financial return from the initiative was minimal for the company, but the exposure and indirect marketing gains were significant. Competitors began to emulate DC’s formula. As of 2005, five new nutrition companies were active on the Lebanese market. DC accounted for almost 40 per cent of the market share; the rest was divided between Diet Delight, Gabarit, Health Box, Low Calories, and Carla’s Good Food (see Exhibit 1).

Consumers were becoming more health conscious and more aware of the availability of weight management products and programs. Consumer loyalty was becoming extremely difficult to harness with an increase in emerging industry newcomers and online access to information, as Wazzan explained:

Advances in technology, mainly the Internet, revolutionized the way business was conducted and, consequently, attracted more industry competitors. New fad diets were also available at the click of a mouse. The market became increasingly competitive and margins were squeezed. I had to devise new strategies to deal with this new environment.

Every time DC introduced a new program to the market, competition followed suit. Even though

DC was leading the competition, it still incurred losses. At a time when the average net profit margin for a company in the food industry was around 5.2 per cent, DC's net profit margin decreased from a high of 19.14 per cent in 2013 to 14.11 per cent in 2014 (see Exhibit 2). The company's gross margin also decreased from 70 per cent in 2010 to 65 percent in 2014 (see Exhibit 3).

THE DIET CENTER

Foundations

Wazzan was the second child born to a prominent Beirut family. In 1976, she enrolled at the American University of Beirut (AUB) to pursue a pre-medical degree in chemistry where she met her husband-to-be, Rifaat Jabri. The couple married in 1981, upon graduation, and then decided to shift their vocation after seeing an increased interest and heightened competition in the medical field. The two graduates decided to join AUB's Faculty of Agriculture to pursue double degrees in nutrition and food technology, which AUB offered at the time. Wazzan completed a master's program in nutrition and her husband received a master's degree in food technology. In 1988, toward the end of the civil war, the couple and their two toddlers were forced to flee Lebanon to the United States.

At that time, the concept of light diet and healthy living was very popular in America, with companies like Jenny Craig, Weight Watchers, and Nutrisystem saturating the market. Wazzan and her husband Rifaat decided to seize the golden opportunity and open their own health and nutrition company in Lebanon when they returned. In the meantime, they carefully planned and prepared for the new business venture by conducting exhaustive research. The couple adopted the successful Johns Hopkins medical diets and Krause's various nutrition references as their main sources of information and designed their diets accordingly. Although she was self-taught, Wazzan prepared menus according to the division of calories and prepared light meal versions by baking, using a minimal amount of fat, and substituting lipids. She then tested her adaptations on her family and close friends, who strongly encouraged her to develop the venture into a larger project. In 1990, when the political situation began to settle, the couple returned to Lebanon and opened DC.

Brand and Products

DC was a three-part concept: a dietetic clinic for treating obesity and medical problems related to obesity and food allergies, a production kitchen, and retail outlets with delivery systems.

The DC paramedical business offered health and diet nutrition and served the community by spreading health awareness and selling low-fat, low-calorie food designed for weight management and therapeutic medical treatment. Because most DC clients suffered from diabetes, hypertension, obesity, and cardiovascular disease, they needed to adopt a healthy lifestyle. Wazzan proudly saw DC not only as a business, but as "an educational institution teaching a know-how—the production of various food lines and Mediterranean healthy diets." DC's apple logo reinforced the fact that the company's products were not only dietary but healthy too. The branding emphasized a culture of long healthy living.

Different dietary menus were devised with specific calorie counts and according to growing needs. New programs emerged resulting from updates and subspecialties in the field of nutrition and the changing economic conditions. As of 2014, DC offered various customizable dietary meal plans.

Business saw some growth in the first three months as demand for competitively priced DC products increased. Clients were extremely satisfied, and popularity spread quickly by word of mouth. DC's customer base consisted of prestigious clients who believed strongly in the integrity of Wazzan's business and the medical expertise she offered. By 2006, the number of DC clients reached 300, with many referrals coming from the American University Hospital, a prestigious regional institution. DC was therefore associated with high-quality service standards, reliable diets, and successful results.

SITUATION AND PROBLEMS

Although DC was the industry leader in the region in the 1990s, the company incurred numerous losses from 1995 to 2014 mainly due to political instability, civil unrest, high costs, and poor customer loyalty. Most of the profit was used to pay salaries, which accounted for 30 per cent of sales, and a $2-million debt that had been incurred to purchase a large property from which to run the rapidly growing operation. Wazzan could not understand why, after such a successful start, strong client base, expansion, and growing turnover, the company was incurring high operation costs, excessive waste, and an unsatisfactory bottom line (see Exhibits 2 and 3).

Internal Organization

DC was a purely family-run business and was formally governed. All business functions were managed by Wazzan and her husband. The couple worked together as a team to ensure the smooth running of operations. In the early period, the couple's focus was more on running operations efficiently and increasing sales and market share, and less on managing costs. Topics were typically driven by business development and needs, ranging from daily operational issues to important strategic decisions. Wazzan explained how the various responsibilities were assigned:

Decisions relating to operations, dispatching, and distribution were delegated to the chief operation manager, whereas decisions relating to other business functions, such as daily kitchen production, were delegated to the executive chef. Decisions related to customer care, follow-up, and collection were delegated to the administrative assistant. Rifaat and I were like business apprentices with a very slow learning curve. It took us almost 10 years to establish a good business relationship with our suppliers. We also did not know how to bargain for good financing, which is why we ended up going into high debt.

In 1994, DC had one finance manager, numerous directors with limited business expertise, and no proper internal control system. As a result, the couple had to delegate many tasks and responsibilities to their employees and their finance manager so that they could travel to Saudi Arabia to set up the first DC franchise in 1994–95. Unable to leave the Beirut branch without an owner-manager, they were forced to take turns running the new franchise. The couple felt a growing need to hire sales, distribution, accounting, and operations professionals, and recruited positions according to need as the business expanded. By 1998, in addition to the management team, DC had 100 employees (see Exhibit 4).

In 1998, both of Wazzan's parents fell ill, and she was forced to conduct business away from the office. At the time, Wazzan was involved in several projects including opening various Diet Shop point of sale (POS) locations across Greater Beirut, participating in the television show *Star Academy* as the exclusive nutritionist, conducting training seminars and workshops, and consulting for various restaurants, hotels, schools, and hospitals. To keep up with the demanding business and numerous new projects, Wazzan delegated some important tasks to the senior accountant, including such responsibilities as purchases and cash management, which were normally outside of his job description.

After the 2005 assassination of Prime Minister Rafic Hariri, Wazzan lost half her clientele. During the 2006 July War against Israel, the number of DC clients plummeted from 195 to zero, resulting in a $160,000 loss. Food cost, which normally accounted for 20–28 per cent of sales revenue, was at 34 per cent. Wazzan explained the effect of the July War on running DC:

During the war, we had to buy and distill water, since only 40 per cent of the purchased water was being used. As a result, we incurred extra cost for utilities. To make it in the industry through these tough times, I had to leverage my brand equity and reduce costs.

In 2014, Wazzan started working on a very refined catering branch called Tickles, for which she hired a special team. Tickles offered a variety of healthy menus and counted among its clients the

Lebanese Chamber of Commerce, AUB, numerous schools, embassies, and banks. It also provided catering for birthday parties and other special events. Despite the growth in projects, Wazzan and her husband were still unsatisfied with the financial results and the stagnating sales growth (see Exhibits 2 and 3).

The couple had rigorously planned and considered all aspects of the company’s services and products. However, it seemed that the business side of the endeavour was being completely ignored. There was insufficient awareness regarding the importance of internal governance as it related to segregation of duties, implementing policies, and standards of operating procedures. “Standards of conduct were managed on an as-needed basis and haphazardly,” explained Wazzan. As a result, DC faced major managerial problems on all levels, from hiring the right staff, bargaining with suppliers, and controlling operations to simply achieving a good bottom line.

Operations Management

By 2014, DC was using four different software programs to run and coordinate the financials of the company’s main departments. The first software, the Diet Clinic System, was used to track DC clients from their financial accounts balances to the programs they wished to subscribe to. It recorded client preferences and kept other data on record for later visits. The Omega System was a POS tool that was integrated into DC stores. The system issued invoices and controlled DC accounts from the statement of accounts to control inventory, delivery details of sales items, and profit. The company’s third software was a human resources system used by the human resources department to track employee data, which included daily time attendance, days of employment, vacation, and unpaid leave. It calculated each employee’s salary, social security, and other government-related payments. The fourth software was the ABC system, the company’s main and comprehensive financial and accounting system, which combined all data from the other three systems. It generated DC’s balance sheets, income statements, trial balances, and declaration of sales taxes to be submitted to the government. Integration of the data was done manually and proved to be very time-consuming.

Despite such organizational systems being in place, Wazzan was frustrated and unsatisfied with operational management. Support functions in the accounting, finance, and procurement departments were poorly managed and lacked proper oversight. As a result, Wazzan was not receiving relevant operational and financial reports on time. She was also missing reliable data on stock levels that prevented her from conducting efficient and effective inventory planning, as she explained:

Processes were not interrelated, not organized, not documented, and discrete business decisions were taken without reference to a solid and reliable source of data. There were no budgeting tools to forecast sales and expenses for a given fiscal year, making strategic decisions very difficult.

Procurement was not integrated with inventory and accounting, which hindered proper data updates. The approved list of suppliers was unorganized, incomplete, and not up-to-date. The accounting system provided untimely recognition of transactions that led to misleading financial data, duplicate transactions, and report redundancies. There was no documentation of needs supporting requisitions. The matching and monitoring of purchase order, delivery, and billing status was ineffective. Operations were hampered by numerous manual procedures and were subject to delays and human error. More importantly, there was a lack of timely management visibility of operational and real-time financial data and reports.

The ABC System, the main data management and core operating system, had serious weaknesses. The ineffective and archaic accounting system was a stand-alone, independent program that did not link the operations and transactions of various departments, resulting in daily operational inefficiencies. The simple bookkeeping system did not help management assess the adequacy and integrity of data for solid analysis and decision-making. The compilation of operational and financial data was nearly impossible. Operations missed systematic approval flows on events such as purchasing, sales, and cash management. Such variances in data and weak internal environmental control resulted in many types of business misconduct.

Having so many sources of data challenged DC’s integrity. To reduce inefficiencies and waste, there was an urgent need to integrate the data of DC's four main departments: the clinic, the store, production, and POS and delivery. Wazzan needed consolidated data stored in a centralized ERP database to enable real-time data updates that allowed critical business decisions to be made promptly and remotely, when necessary.

NEW ERP STRATEGY: THE SAP SYSTEM

SAP was a multinational provider of a robust ERP business management system. The company was founded in Walldorf, Germany, in 1972. Not only was SAP the world's largest business software provider, it was also the world's third-largest independent software provider, and a market leader in client-server implementations, with the largest market share (almost 25 per cent) of the overall ERP market.[7] The SAP software was mainly adopted by large companies and was considered the gold standard in ERP systems. It facilitated all kinds of financial and managerial reporting by integrating various interdepartmental operational functions. It offered 100 built-in standard templates and numerous customized reports. SAP allowed executive management to easily oversee all business activities and operations from one live database.

The SAP software seemed to be exactly what Wazzan and DC needed. The system, however, was costly, and Wazzan worried about how to finance the purchase. A local ERP system called Noria, developed by the Lebanese information technology provider Engineering Design and Manufacturing, was offered at a much lower cost. It was agile and targeted medium enterprises, and many users considered it the most reliable and cost-effective ERP system in the Middle Eastern market. However, Wazzan was intent on working with her close relative and with SAP's sales manager Jabri, who had recommended the migration to the SAP system.

Jabri also offered very lenient payment facilities. Although the software was expensive, he explained that it would cost the company much less than the annual waste of labour, food, and material costs. The capital investment represented 10 per cent of DC's yearly sales, which was a reasonable expenditure amount given the numerous benefits it represented when properly implemented and utilized. As Jabri explained, "The return on investment is expected to be very high. The payback period resulting from cost savings, eliminating redundancies and preventing fraud and waste is expected to be six years."

Implementing the SAP software would result in proper cost accounting, financial and managerial reporting, and an optimal cost structure by allocating costs by projects and costs centres to optimize overall cost structure. The scope of the intended SAP software implementation also focused on payroll and stock management. Jabri mentioned that quality control would also be enhanced because the SAP system linked all processes. The system would facilitate the centralization of all data into one platform, available to various users. It would also pinpoint the red flags in the database, and offered customized solutions for the various departments.

Wazzan strongly believed that the SAP system would formalize and systematize all DC's business operations, and it would certainly limit the cash drain and other losses due to the inefficiencies the company had experienced in the past. She was also confident that the system would reduce salary expenditure by reducing the number of employees and overtime. The SAP software offered opportunities for additional internal control. The system would facilitate new business lines in data integration, safeguard data, monitor the budget, and conduct variance analysis. She was now convinced of the need to implement the SAP system to stop all kinds of waste and improve the bottom line.

DECISION

Wazzan needed to act quickly. She could not increase sales growth and business market share, due to increased competition, a slowing economy, and the emergence of fad diets on social media. She realized, however, that she could reduce costs and inefficiencies significantly, by 10 per cent, if the SAP software was implemented. She was also aware of the additional constraints of adopting the program. The old system would have to run in parallel during the 18-month set-up and testing period. Staff would require training both before and after implementation. An internal auditor and a financial consultant would have to be hired for budgeting training. Other indirect costs included depreciation expenses, license renewal fees, the implementation of networking infrastructure, and upgrading the information technology hardware, which alone would cost over $50,000.

Wazzan was worried about staff resistance to the radical change, especially because introducing the new system and processes would initially complicate workflow. She wondered if the migration of old data to the new system would be smooth and complete. Any mistakes in the process could cause data loss and might have negative tax implications. More importantly, would operations use the SAP system with maximum efficiency? That is, would existing competencies match the average level required to operate the new ERP program? What other rigorous internal controls had to be implemented to render the use of the SAP system relevant?

Many questions haunted Wazzan. She was being very cautious in making such an investment decision. She wanted to make sure that the initiative would provide substantive benefits relative to total lifecycle costs. She picked up the phone to consult her husband, who was away managing the Saudi franchise.

EXHIBIT 1: THE DIET CENTER'S PRIMARY COMPETITORS IN LEBANON

Company	Year Established
Gabarit	2004
Low Calories	2005
Carla's Good Food	2010
Health Box	2010
Diet Delights	2013

Source: Company files.

EXHIBIT 2: THE DIET CENTER INCOME STATEMENT (2010–2014)

Year	Gross Operating Profit	Net Profit
2010	22.80%	15.80%
2011	13.00%	8.20%
2012	8.80%	4.32%
2013	28.60%	19.14%
2014	18.57%	14.11%

Source: Company files.

EXHIBIT 3: THE DIET CENTER GROSS MARGIN (2010–2014)

Year	Gross Margin
2010	70%
2011	67%
2012	68%
2013	71%
2014	65%

Source: Company files.

Questions:

1) Identify the specific organizational and operational challenges faced by DC.
2) Explain how an ERP system, such as SAP software, can solve the identified challenges and improve strategic decision-making.
3) List factors the company should consider before adopting an ERP.
4) Evaluate the costs and benefits of adopting the SAP system.