

Case Scenario:

Unilever is the third largest consumer goods company in the world behind Procter & Gamble and Nestlé. This Anglo-Dutch multinational boasts more than 400 brands, sells its products in more than 190 countries, and employs more than 175,000 people worldwide. Unilever has operating companies and factories on every continent and subsidiaries in almost 100 countries. Twelve Unilever brands—including such recognized names as Knorr, Hellman's, Lipton, and Dove—generate revenues of more than 1 billion Euros (US \$1.15 billion) each year.

Unilever is organized as two separate holding companies: Unilever PLC (public limited company), headquartered in London, United Kingdom, and Unilever N.V., headquartered in Rotterdam, The Netherlands. The two legal divisions operate as nearly as possible as a single economic entity—the Unilever Group. To grow its business in developing and emerging markets, Unilever needed to unify its core business processes. The company recognized that managing volatile prices and fluctuating commodity supplies across different markets required a more standardized and scalable operational model. However, prior to 2007, this was a significant challenge. Nearly every business unit in each of the 190+ countries operated independently, creating inconsistencies in operations and a lack of integrated oversight.

Every transaction for each order Unilever receives, material it produces, item it ships, and invoice it issues depends on ERP systems. At one point, the company operated with over 250 different ERP systems globally. This fragmentation made it difficult to maintain visibility, consistency, and speed across its expanding global operations—particularly as transaction volumes were increasing rapidly. Leaders at Unilever began considering how to simplify the company's complex technology environment and enable a unified global structure.

With projected transaction volumes rising significantly, Unilever recognized that it needed tools capable of handling high-speed processing across a global scale. There was growing interest in exploring more modern enterprise technologies that could support faster analytics, real-time decision-making, and integration across functions. Around the end of 2012, the company began evaluating advanced in-memory computing tools for ERP optimization. Leadership teams were particularly interested in how such technology could support analytics, transaction performance, and business responsiveness.

One area under scrutiny was the company's financial processes. Unilever wanted to accelerate tasks such as the month-end close and gain deeper, faster insights into key financial metrics. Cost and pricing transparency—especially for raw materials—was a growing concern, particularly in volatile market conditions. Leadership began to explore how better data visibility could help improve profitability analysis and margin understanding.

At the same time, Unilever was working to improve enterprise data integration for reporting and analytics. Its data warehouse systems needed to combine internal ERP data with external market data to support financial analysis. Leaders saw potential in systems that could identify cost and profit drivers more dynamically and across multiple dimensions, such as product lines, regions,

Part 1 - MIS Questions:

Your management information systems course stressed the importance of analyzing the business situations using several models such as the Porter's Competitive Forces Model, the Value Chain model etc. and the importance of using generic information systems strategies such as Low-Cost Leadership, Product Differentiation etc. for achieving competitive advantage. Furthermore, the class also discussed the importance of considering management, organizational, and technological issues when building and using the information systems successfully. For the next set of questions, you are required to apply these concepts when providing your recommendations.

Q1. Discuss the structure of the industry in which the above-mentioned scenario's business is located. Evaluate the elements of Porter's Competitive Forces Model and Value Chain model as they apply to the business as mentioned above. Describe the results of this evaluation.

Q2. List the Management Information Systems (MIS) you would recommend for the above-mentioned case. How effective would these systems be in giving this above business a competitive edge? Explain your answer.

Q3. What management, organization, and technology issues should be considered when implementing the proposed systems for the above business?

Part 2 - Systems Analysis and Design Questions:

Q1. Draw the use case diagrams for the above-mentioned case scenario.

Q2. Draw the activity diagrams for the above-mentioned case scenario.

Q3. Briefly discuss what kind of project methodology you would use in the above scenario and why. Include in your discussion the possible project scope and risk issues you may encounter.

Part 3 - Advanced Database Management Questions:

Q1. List the business rules for the above-mentioned case scenario. You can make reasonable assumptions as long as you state them clearly in your answer.

Q2. Create an ERD diagram based on the business rules you wrote above. Include all entities, relationships, connectivities, optionalities, and cardinalities.

Q3. Discuss the database solution the above-mentioned case scenario needs.

Part 4 - Telecommunications Questions:

Prepare a proposal that identifies network needs for the above-mentioned business. Your proposal should have, at a minimum, the following.

Part 1:

A. Prepare a proposal for an appropriate network solution based on your analysis of the above scenario that identifies network needs for the mentioned case. (Hint: Try to explore appropriate networking topologies, networking devices, networking services, and network-building methodologies like traditional or building blocks. Try to explore more networking solution components.)

B. Identify any security concerns you have for the network and development of appropriate countermeasures, network management policies, and procedures.

Part 2:

Network Design related question:-

A. Build or Draw sensible and detailed LAN / WAN / MAN Connectivity map diagrams with explanations. A hand-drawn diagram is not accepted. (To draw the diagrams, you can use draw.io, lucid chart or visio or any other computer-aided tools.)

B. If applicable, then do gap analysis; if not, then why is gap analysis not possible for this scenario? Explain.

Part 5 - Ethical Analysis Questions:

Q1. Assume there is a data breach in the above-mentioned business scenario. Identify and explain the ethical considerations for Information Systems managers and for the company

Q2. Perform an ethical analysis of the data breach incident using the five-step process you have studied in your MIS class (CIS 5311). How should the company handle the data breach?

and customer segments. The finance and IT teams discussed tools and modules that might enable better profitability tracking at scale.

The company also needed to make internal processes like Cost Center assessments and period-end reporting more efficient. Time-consuming reporting cycles slowed decision-making. Additionally, Unilever required better tools for evaluating operational efficiency, cost structures, and potential areas for financial optimization. Unilever's financial systems required enhancements in cash forecasting, cost planning, and margin analysis. With hundreds of millions of transactions and records generated monthly, the time and resources needed to perform basic reporting and forecasting were substantial. Executives were seeking ways to shorten these cycles without compromising accuracy or detail, while also being able to respond quickly to changing business needs.

Another significant challenge involved Unilever's trade promotion processes. These campaigns drive a large portion of company revenue, especially during product launches. However, inventory allocation was handled sequentially, with no visibility into which customers were running promotions and which were not. This made it difficult to prioritize stock effectively, often leading to suboptimal outcomes during high-stakes sales periods. Senior executives began asking whether more intelligent, scenario-based inventory planning tools could make promotional campaigns more efficient and profitable.

In the broader context, Unilever also faced increased pressure to improve the speed and accuracy of sourcing decisions and pricing analysis. With a vast product portfolio and over 2,000 regulated chemicals used in manufacturing, the company had to stay compliant with European Union's Registration, Evaluation, Authorization and Restriction of Chemicals (EU REACH) regulations and its own sustainability goals. Leaders recognized that existing systems would need to be significantly improved to meet these expectations.

Sources: "Unilever: Implementing SAP HANA to Achieve Rapid Global Innovation," www.accenture.com, accessed May 1, 2017; "Unilever Puts SAP at the Captain's Table," ComputerWeekly.com, accessed May 1, 2017; "Unilever: Upgrading European SAP Platform," www.accenture.com, accessed May 1, 2017; "Doing Things Differently to Make a Big Difference in the World," SAP.com, accessed January 19, 2015; "Unilever: SAP HANA," www.accenture.com, accessed January 19, 2015; "Our Compass Strategy," www.unilever.com, accessed January 20, 2015; and Ken Murphy, "Unilever Goes Global with a Transformative SAP HANA Project," [SAP insiderPROFILES](http://SAPinsiderPROFILES), July 1, 2013.

The five steps in an ethical analysis are:

1. **Identify the Issues:** Determine the major moral or ethical issues and factual issues involved.
2. **Outline the Options:** List the possible courses of action available.
3. **Construct Ethical Arguments:** Develop arguments for and against each option.
4. **Evaluate the Arguments:** Assess the strengths and weaknesses of each argument.
5. **Make a Decision:** Choose the best option based on the analysis.

