



Department of Computer Systems Engineering,
University of Engineering and Technology Peshawar,
Pakistan

Final term Exam (8th Semester, Spring 2024)

Paper: CSE-406

Course Name: Engineering Project Management

Time: 2 Hours

Marks: 50

Utilizing all applicable principles to address the questions at hand is crucial, drawing upon the knowledge gained throughout the course. It is recommended to avoid exceeding the specified limit, especially when handling time-sensitive cases. Marks distribution is not equal.

✓ Question No. 1 (Marks=6) (CLO-4)

Describe reasons why there has been a recent shift for organizations to begin highly publicizing their attempts to encourage entrepreneurship in their organizations. If the organizations are so helpful then what can be the reason that so many startups are failing and only a few succeed with so much support.

✓ Question No. 2 (Marks=8) (CLO-3)

You have been tasked with creating a water park in Peshawar. Conduct a SWOT analysis for the project and determine whether funding should be allocated to it.

Question No. 3 (Marks=9) Case Study:

The Technological Restructuring of Work Paradigms

The contemporary epoch has witnessed a metamorphosis in the modus operandi of work, driven by the burgeoning advancements in the realm of information technology (IT). IT has facilitated a paradigm shift from the hitherto prevalent, office-centric work environments to a more protean remote work paradigm. This newfound ubiquity empowers employees to execute their assigned tasks from any geographical location possessing a robust wireless internet connection.

Advantages of Remote Work:

- **Enhanced Interconnectivity:** Mobile devices imbued with electronic mail, calendaring, and contact management functionalities offer employees perpetual access to indispensable work instruments, irrespective of spatial constraints.
- **Augmented Collaboration:** Video conferencing platforms leverage high-bandwidth networks and webcams to facilitate seamless remote communication and collaboration between geographically dispersed workforces.
- **Secure Network Access:** Fortified corporate networks, often accessed through employee key fobs equipped with dynamic encryption protocols, allow authorized personnel to access proprietary data and electronic mail from any internet-tethered computer.
- **Ubiquitous Connectivity:** Contemporary cellular telephones seamlessly transition between cellular networks and corporate Wi-Fi connections, ensuring employees remain interconnected throughout the entire workday.

Security Considerations:

A paramount facet of implementing remote work practices is the imperative to safeguard the confidentiality of sensitive corporate information. Companies need to adopt robust security protocols and software solutions to minimize the potential hazards associated with remote access.

The Future of Work:

As the IT landscape continues to evolve at an exponential rate, organizations have the opportunity to explore the development of innovative work applications meticulously tailored to their specific exigencies. These applications have the potential to empower employees and enhance overall work efficiency and effectiveness. By embracing the burgeoning potential of mobile technology, organizations can pave the way for a more protean and productive work environment in the years to come.

Discussion Questions:

1. What benefits do you see with being able to do work anywhere, anytime? (Think in terms of benefits for an organization and for its human resources.) How do you personally feel about being able to do work anywhere, anytime?
2. What other issues, besides security, do you see with being able to do work anywhere, anytime? (Again, think about this for an organization and for its employees.)
3. With the availability of information technology that allows employees to work anywhere, anytime, is organizing still an important managerial function? Why or why not?

✓ Question No. 4 (Marks=8) (CLO-3)

Mobile service providers segment their customers based on several variables. What are some of these variables? Using Porters Five Forces Model answer the question.

✓ Question No. 5 (Marks=10) (CLO-2-3)

Global Green Books: Striving for Seamless eLearning Experiences

Global Green Books is experiencing a boom in their custom eBook business, catering to both colleges and commercial clients. However, a growing number of quality complaints threaten their success. Customers expect flawless digital learning experiences, demanding eBooks that function flawlessly across various operating systems, devices, and platforms. Unfortunately, issues like malfunctioning eBooks, unclear content, and missing components are creating frustration and rework, ultimately driving up costs.

Communication Gap Hinders Quality:

Samantha, a key player at Global Green Books, recognized a critical communication gap. Customer service representatives manage all interactions regarding customer quality

requirements. This leaves project teams in the dark about specific customer expectations. Team members lack a clear understanding of "good" from the customer's perspective, potentially leading to tasks completed technically correctly but missing the mark on actual usability and quality.

Missing Quality Checkpoints:

The existing project workflow lacks a proactive approach to quality. The standard project template doesn't include built-in checkpoints or reviews throughout the production process. Quality checks solely happen after the entire eBook is complete. While this catches some issues, it misses opportunities to identify and correct problems early on, particularly at the component level (content formatting, conversion errors, etc.).

Misconceptions About Quality Ownership:

These factors contribute to a misconception within the company. Many team members view quality as an afterthought, solely handled by separate departments like quality control and customer service. This perspective disconnects quality from the core production process and diminishes the sense of responsibility for quality among team members.

Testing Limitations and External Costs:

Customer service representatives diligently test each eBook. However, limitations exist. They cannot always test in the exact environment that the end user will encounter. Different user equipment can lead to unforeseen issues after release. This results in external costs associated with addressing customer complaints, rework to fix the eBooks, and potentially releasing revised versions. While Global Green Books benefits from customers handling distribution and avoiding customer return and warranty costs, prioritizing quality remains crucial.

A Vision for Optimized Quality Costs:

Samantha and her team are committed to optimizing quality costs. Their aim is to minimize failures – instances where eBooks fall short of customer expectations. By reducing these failures, the team can reinvest the savings into preventative measures. This includes proactively identifying and addressing problems throughout production, ensuring all components meet customer requirements. Early detection will also help reduce internal rework and re-checking costs associated with post-production quality checks.

Ultimately, by improving quality control measures, Global Green Books can ensure seamless eLearning experiences and maintain a competitive edge in the custom eBook market.

Answer the following Questions related to the Case study:

- a) Consider the problems that Samantha and the group identified. What do you think are the causes of these problems?
- b) What would you suggest they do differently to eliminate these problems?
- c) Who should be responsible for quality? What would you recommend be the specific responsibilities of each identified role?

- d) What prevention activities would you suggest to prevent poor quality in the eBook products?
- e) What appraisal activities would you suggest to evaluate the eBook product to ensure that it meets quality standards and customer requirements? Should they add in-process checks of eBook components in addition to their current final inspection/tests? If so, who should do these?

Question No. 6 (Marks=9)

A Retail Giant with Deep Roots

Tesco, a British multinational grocery giant, boasts nearly 500,000 employees and raked in over £55 billion in revenue in 2017. Founded in 1919 by Jack Cohen from a humble stall in London's East End, Tesco has grown into the UK's leading grocery retailer, holding a market share close to 30%.

Their journey began with a successful first store in Edgware, North London, in 1929. Since then, strategic expansion has been their key. Tesco has consistently secured prime locations and strategically acquired competitors, including a massive purchase of 850 T&S convenience stores in 2002. This meticulous approach has allowed them to establish a strong physical presence and reach customers across the UK.

Smarter Expansion and Tailored Products Fuel Growth

Tesco's aggressive expansion wasn't haphazard. They leverage a powerful intelligence system to meticulously choose store locations and understand customer needs. This data-driven approach (business intelligence) allows them to tailor product offerings and pricing under one roof.

They cater to budget-conscious shoppers with their "value" line launched in 1993, while also offering premium "finest" products for those seeking higher quality. This shift was crucial as customers became more selective and low prices alone couldn't sustain growth. Tesco revitalized its brand by prioritizing customer service and quality, all while maintaining its value proposition. Innovation is another pillar of Tesco's success. They've transformed from a grocery store to a one-stop shop, offering a vast array of products – from electronics and homeware to clothing, beauty items, and even mobile phones.

Beyond Groceries: Diversification and Herculean Challenges

Tesco's reach transcends the quotidian realm of groceries. They inaugurated their initial petrol station in 1973 and embarked on a multi-pronged diversification strategy, venturing into nascent fields like coffee shops, financial services, and consumer electronics. Their digital footprint is equally impressive, with a robust e-commerce website established in the year 2000, currently catering to a staggering 500,000 customers every week. Furthermore, Tesco has consistently displayed a penchant for innovation, pioneering various store formats like Tesco Express, each meticulously tailored to fulfill the nuanced demands of distinct market segments.

However, Tesco's trajectory has not been an uninterrupted peregrination. In 2014, they encountered a Herculean financial loss of £6.4 billion, primarily attributed to their overly ambitious international expansion plans. These plans, while audacious, exerted undue pressure on operational costs and diverted the company's focus from its core domestic market.

Additionally, Tesco faced the burgeoning threat of fierce competition from low-cost retail behemoths like Aldi and Lidl.

Undeterred, Tesco embarked on a series of sweeping cost-containment measures, including strategic workforce reductions and the divestment of underperforming ventures both domestically and internationally. They also implemented a comprehensive overhaul of their customer service experience across a significant number of stores, and meticulously re-evaluated their pricing strategies to remain competitive. These decisive actions proved remarkably efficacious. By 2018, Tesco achieved its most exponential growth in seven years, culminating in a pre-tax profit of £1.3 billion. Further bolstering their recovery, Tesco recently finalized the acquisition of Booker Group, the undisputed leader in the United Kingdom's food wholesale industry. This strategic move has the potential to unlock a plethora of new customer segments and solidify Tesco's position as the market leader.

Discussion Questions

1. Based on what you have read in the case, does it pay to plan? Which parts of the strategic management process were mainly illustrated in this case? Which management lead to their success.
2. Based on what you have read in the chapter, which strategic weapons is Tesco relying on here?
3. Do you believe gathering information is important for Tesco to win markets? Why or why not?
4. How do you describe Tesco's renewal strategy? Would you change anything about it? How can your strategy be more effective as compared to Tesco's.