
CIS 410-50 Midterm Exam
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Discuss the relationship between IT architecture, organizational structure, and the problem issues at the Apex and Burlington Northern. In what ways were the problem issues affected by this interaction? Given the culture of each company, how are their IT architectures respectively strategically positioned?

To start we need to define both IT architecture and an organizational structure. The Gartner Glossary defines IT architecture as “The overall design of a computing system and the logical and physical interrelationships between its components. The architecture specifies the hardware, software, access methods and protocols used throughout the system.” In addition, it is a framework used to build systems. It is the principles and guidelines that organizations use to interact with IT resources throughout the enterprise (Gartner).

Investopedia defines an organizational structure as, “An organizational structure is a system that outlines how certain activities are directed in order to achieve the goals of an organization. These activities can include rules, roles, and responsibilities.” (Kenton). It also determines how the information flow between levels of the company will work (Usmani).

Burlington Northern and Apex had issues that involved these two areas. BN struggled with its IT architecture while Apex struggled with its organizational structure. However, when one core area is struggling, the other will soon follow. An organizational structure can dictate the IT architecture of a business (Quain). A good piece of software takes the needs of functional departments into consideration and may even automate such tasks. In addition, if a company has multiple locations it operates in IT can support

the communication between them. This is ideal when the organizational structure is not centralized.

Burlington Northern poured an extensive amount of resources into researching and developing a new IT architecture. The ARES system was an automated and interconnected railroad system that would include rail stations, trains, and employees that comprised BN's system. Deliberation on whether or not to implement the system turned into years of inaction. This deliberation was carried out by executives so worried about costs that they in turn created sunk costs that weighed heavily on the company's financial status. They were falling behind their competitors and relying on inefficient technology in the meantime. In the end their lack of organizational structure coupled with a poor IT architecture doomed the project.

One the flipside, Appex had an incredibly talented team and innovation was rampant. However, they were unmanaged and losing their foothold in the infant market. They lacked a successful organizational structure to support their IT architecture (Griffin). The company didn't have a central goal and employees operated independently. When the new Chief Operating Officer implemented circular, horizontal, and divisional structures, they all failed.

Appex failed to implement formal procedures or describe the roles of its employees. A small number of executives made decisions on behalf of the entire company, but employees didn't concern themselves with meeting these outcomes. At the start the organization was project-based, but after exponential growth and a high number of onboarded staff, work became overwhelming. The agile company's organization structure did not evolve with the company (Bughin, et al.). It was difficult to

replace employees because managers didn't even know what their roles were. Coordination was low and employees worked on what they deemed personally important. Their utter lack of a successful organization structure crippled their successful IT architecture.

These two cases are good examples of problems affected by the interaction between IT architecture and organizational structure. Each case described how top decision managers prevented advancements from being made in the information technology of a company. Executives failed to look at the broader picture and focused on the present issues. They did not invest in the futures of their respective companies. On top of this, the cases display how difficult it is to enact change within a large corporation/company.

Creating or adopting a new IT architecture is extremely expensive, so it's understandable why executives at BN were concerned with the costs. On the other hand, implementing a new organizational structure is often met with extensive pushback from employees as we saw with Appex. Despite with the COO did, the employees never adapted to the change and rejected new policies. In turn their once successful IT infrastructure became inefficient and ineffective.

BN's IT infrastructure needed to help them cut operating expenses. It could've revitalized and save the company. The capital gains from ARES would've helped mitigate the development and transition costs. Appex was rated the nation's fastest growing high-technology company in 1990. At the start their IT architecture was extremely successful, but their lack of organizational structure and financial planning

hurt them (Goldratt). They needed to understand their industry before another attempt at organizing the company (Berry).

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Consider the following two organizations – Kroger’s and Netflix. Given the models and theories we have covered up to this point in the course, which company is better positioned for the near future? For the next 15 years? Why?

Kroger’s and Netflix are both giants in their respective industries. To predict which company is better equipped for the future market, we need to first understand how they offer their products and services. Both are ranked on the Fortune 500 with The Kroger Company coming in at 23, and Netflix at 164. While Netflix hasn’t broken into the Fortune 100 yet, it did jump up 33 spots in one year alone (Fortune). Both are successful household names with a slew of competitors, but which displays a greater longevity?

Netflix Inc was founded in 1997 in Los Gatos, California. Reed Hastings and Marc Randolph were serial entrepreneurs who landed in an explosive market. Netflix found success with those who didn’t live in a close radius to video rental stores. Customers browsed the website and selected titles they would like shipped to their homes. Each DVD was sent with a prepaid return envelope. Netflix owned around 100 distribution centers at the time (Hosch). Customers had a flat monthly fee that allowed them to rent as many movies per month as they wanted. However, they could only have a certain number in their possession at one time which was dictated by their subscription plan. At one point Netflix had tens of thousands of titles in their catalog (McFadden).

Historically, Netflix has been good at adapting to changing markets and consumer needs. In 2006 they improved their recommendation algorithm by 10% after

investing one million dollars into a competition. In 2007 they started offering paid subscriptions to their digital streaming service through the Internet. They began partnering with device manufacturers to have their platform native to consoles and disc players. In 2010 they started producing content exclusive to their service (Hosch).

Netflix has a large social media presence and has dished out big budgets for marketing and the creation of original titles. While they have flat sunk costs in paying networks and creators for content they haven't produced, they no longer have to maintain inventory levels or concern themselves with damaged or lost goods. They have a prompt that asks a user if they are still watching after a certain number of episodes are auto played. This avoids unnecessary use of bandwidth which reduces streaming costs. Netflix has a massive amount of traffic, in 2015 they accounted for one third of all internet traffic in North America (Luckerson).

The Kroger company can be traced back to 1883 under Bernard Kroger in Cincinnati, Ohio. He pioneered the grocery industry and introduced self-service one-stop food shopping to the American public. His grocery stores served as his own suppliers for his bakeries and meat departments. Standard Kroger stores have pharmacies and gas stations too. In 1999 Kroger became the largest retail grocer in the United States after acquiring Fred Meyer (Lewis).

It is one of the largest supermarkets in terms of overall revenue. The Kroger Company offers a range a services and competes in a larger number of markets. Netflix's only service is content production and streaming. In terms of global value, the video streaming market size was valued at 42 billion in 2019 (Grand View Research). In 2017, the food and grocery market was valued at 8,045 billion (ReportLinker). Despite

the two-year difference between reports, we can deduce the colossal difference in value.

Kroger is dependent on suppliers. Food and home goods are sourced from a variety of retailers and distributors. However, food suppliers operate on a low-cost basis so their bargaining power is low. Kroger could shop around and contract different suppliers, especially for their home product categories. Netflix is slightly dependent on suppliers. In 2019 they spent 14.7 billion on licensing content. This number will decrease as they focus more and more on creating their Netflix Originals.

Each organization has a large number of competitors. Kroger's competitors include Walmart, Costco, Walgreens Boots Alliance, Tesco, and Target. Netflix's competitors include Amazon Prime Video, Hulu, Disney+, YouTube TV, HBO on Demand, Sling TV, Crunchyroll, Apple TV+, Twitch and Crackle (What Competitors). While this list covers most if not all of Netflix's competitors, Kroger is also competing against the restaurant and minimart industries.

Each organization faces the threat of new entrants. Every industry has benefitted from the dotcom boom, data analytics, and algorithms. This has also made it easier for new companies to launch their products and services. Entertainment is constantly evolving, but the food retail market remains mostly unchanged. The film industry can be traced back to 1895, while the first Kroger store alone was opened in 1883. This is not to suggest that older companies always outlive the new, but these industries occupy completely different realms. The food retail industry is not at risk of evaporation, but with time each industry could become more saturated than they already are.

Since both organizations have a slew of competitors, their customers hold the most power over them. It would be foolish to suggest that people will stop shopping for groceries because sustenance is essential for human survival while entertainment clearly isn't. In that same vein, grocery stores will always be able to acquire and retain customers. Streaming platforms are constantly fighting for customers, services are launching original content and elaborate ad campaigns targeted at signing people up for subscriptions. Simply put, customers have options and power over each organization.

Grocery stores have similar products and adequate substitutions. While grocery stores have introduced and supported price matching policies, streaming services haven't done the same. Groceries and streaming services both try to offer competitive prices, but streaming services have differing products altogether. Each service has a different catalog, and while there is some overlap, customers may sign up for the service that has the content they are seeking. On the other hand, groceries need to be geographically placed in a semi-close location to a customer for frequent visits.

In conclusion, Netflix is an infant company in an infant industry. They will continue to be at risk until they can offer a diverse product line. This diversification will increase their foothold in a broader range of markets and create the longevity Kroger already possesses. Kroger operates on low costs and multiple competencies while Netflix operates based on differentiation. Innovation is rampant in each organization, but Kroger has the head start. Each is adapting to changing markets, but Kroger is better equipped for the future. Entertainment is constantly changing, but people will always need to buy food at grocery stores. Netflix is in a single market with one competency, they don't have a fallback. This puts them in a better position for the near future.

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Combined with this exam Blackboard, there is a PowerPoint presentation (filename Colleague Core Competencies) from a large pharmaceutical outlining the annual results controls for the company's sales force, which is the sole determinant of their annual bonuses. You are a consultant asked to comment on the quality of the controls. What do you report to the senior management of the drug firm about this control set?

Control is extremely critical to the success of an organization, it defines how an organization sets its objectives. Metrics set in place to measure control sets are imperative in analyzing employee performance. Assessing both technical skills and functional skills is important. Controls are implemented on sales forces to reward or discourage outcomes. Since positive outcomes are rewarded, this in turn rewards positive performance.

Employees that receive positive rewards are more motivated than those who do not. When employees, especially those in sales, are motivated, the company thrives. When salespeople aren't motivated, they sell fewer products. This model pairs well with the commission system. When salespeople make money for the company, they are making money for themselves. Peter Drucker coined the term "profit center" in 1945 (Segal). A profit center is a branch of a company that directly adds to the organization's profitability through the generation of revenue and earnings. Salespeople are profit centers. If they weren't earning commission they would complete the minimum amount of work necessary to get paid (James).

Sales drive a business forward financially and the goal of a business is to make money now and in the future (Goldratt). The sales force is imperative in achieving that goal. Salespeople have direct relationships with a business' customers. They generate income by building trust with their clients. Salespeople interact with potential customers by providing information about the business and its products and services and they engage with past clients by following up on orders and communication at all stages (Gluck).

Without sales a company will go under. Commission or sales-based incentives encourage individuals to work hard at completing a sale. Especially when someone else could do it first (Patrick). Sales team's incentives are different than other employees because they are profit centers. You can directly trace how much money they are making over project contributions which aren't are measurable. Both salespeople and everyday employees are judged on their performance equally, but salespeople's evaluations factor in their sales numbers.

Midwest RBU bases their incentives on positive qualities instead of solely basing them on performance. They are encouraging qualities they have deemed positive, but that doesn't exactly translate into more cashflow. For example, an employee may possess every quality Midwest RBU is looking for, but fail to sell anything. Since they are a sales force, it is atypical that unit sales aren't determining the incentives. If incentives aren't performance based, why would they be motivated to sell products? With bonuses structured around behavior, why even enact a commission system? A flat salary can destroy the incentive to excel in the workplace (Strain).

However, basing some incentives on qualities can dispel a lot of pressure. If an individual is struggling to meet their goal numbers due to being new or experiencing stress outside of the workplace, they won't be penalized as harshly. When management sees they are trying and putting forth effort, they will still be rewarded. This fosters a positive professional environment and can lead to employee retention.

As the consultant, my recommendation would be to incorporate sales as a measurement when rating the overall performance of employees on the sales force. The controls that Midwest RBU has in place are serving their purpose, but creating incentives based on them alone is inefficient. Everyday employees' incentives and bonuses should be left as they are, they should continue to be judged on their qualities and work ethics. Salespeople are different though, they are profit centers, not cost centers (Tuovila). This fact alone should be taken advantage of. They need to be motivated to make money for the business.

In addition, it may be beneficial to add customer surveys and questionnaires on salespeople as another category. This would allow management to accurately determine how an individual represents the company and closes on a deal. Supervisors wouldn't have to monitor their employees as closely if customers provided that information (Gerber). On top of this, the scope of analysis for salespeople may be too broad. Since they have tangible metrics in place already, determining their qualities is less important.

Lastly, employees need performance reviews. Knowing where you stand is extremely important and is a motivator to do better. Employees should know where they fall on the scale, but it could lead to increased competition or discouragement if the

salespeople compare their results. Finding a balance is imperative because everyone needs to stay motivated. Those performing poorly need reassurance and assistance. Those performing excellently may seek to renegotiate their benefits and salaries if they learn of their true value to the business. Instead of giving them their exact numbers, informing them of the strength and weakness results is the better option. This could lead to shortcomings being eradicated and proficiency being maintained or increased (Aloysius).

In conclusion, I believe the controls in place are working as intended. However, salespeople's bonuses should be based on their qualities and overall sales performance. They need to be determined and motivated, and carrying out performance reviews is a good way to ensure this. In the end, a good employee doesn't make a good salesperson.

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