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CIS 410

Midterm Exam

1) Discuss the relationship between IT architecture, organizational structure and the problem issues at the Appex 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?

The Burlington Northern and Symmantec issues as a whole were vastly different, save for similarities in the communication problem that they both shared. BN was plagued by communication issues in coordinating trains, and ARES seemed like the viable fix. However, an implementation of an IT architecture to keep tabs on each train and coordination of maintenance crews to the site of any problem tracks could have done what ARES sought to do at a much lower cost (BN). Symmantec's communication issue, conversely, was caused by the entire organizational structure of the corporation. The local IT architecture was not meant for the rapidly expanding company that Symmantec was becoming, and their needs quickly surpassed their capacity. An influx of redundant data was being shared multiple times, with some departments never even seeing it (Symmantec).

Burlington Northern had an existing IT structure in ARES's previous development, but that was not necessarily a means to solve their problem and was instead designed as a new feature within their business model. Train lines could function, and they could function well, but human maintenance and control was always difficult to implement, and that wasn't the fault of the IT architecture. Symmantec had a better IT architecture than BN, but the system was difficult to maintain and did not feature a communication standard across the company. Project teams wouldn't communicate progress and goals efficiently, and systems control was virtually nonexistent, so management control systems, being the primary tool of results control, were obviously not present (Cash).

Symmantec always operated under a divisional organizational structure that grouped together "diverse functions such as manufacturing, research and development, and marketing within each division" (Cash). Despite this separation of duties, their different departments were never quite sure of what the others were working on. Burlington Northern, on the other hand, operated using a functional organizational structure. Most companies who start off with a functional organizational structure often graduate to a more sophisticated structure (Cash), but not in the case of BN. They instead utilized their organizational structure to become a cost leader in the transport of raw goods and services, so their communications issue was not caused by their organizational structure.

2) Consider the following two organizations – Wal-Mart and Hulu. 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?

Walmart and Hulu are two very different organizations that have very few things in common. Hulu is an online-only business, where Walmart has an online presence that supplements their brick and mortar stores. Hulu offers their services on a subscription model, where Walmart offers products to be purchased one time. Walmart also offers tangible goods whereas Hulu offers a license to consume a select group of content. Walmart, therefore, will be the better-positioned company in the next 15 years, as their organizational structure has evolved due to market needs (Cash) whereas Hulu was born from a pre-existing market of media consumption that was created by Blockbuster and was improved by Netflix and the Internet.

Vladimir Zwass says that the three main components of an e-commerce site are infrastructure, services, and content/products (Zwass). Infrastructure can include the servers for the online presence of both companies, as well as the physical stores that Walmart owns and operates. Services include credit card or cash processing and other customer services such as support, feedback, etc. Content includes Hulu's license to watch all the films/shows on their platform and Walmart's entire purchasable stock.

Walmart enjoys a competitive advantage against competitors, and "the extent to which this advantage is sustainable is a function of how inimitable and difficult to substitute the capabilities are" (Afuah & Tucci). Walmart's supply network is unrivalled, and they have massive customer bases with high loyalty. Because they work with unique resources and have their brand name recognition, they can look to a team-up competitive strategy should they face any issues in any one market (Afuah & Tucci). Hulu does not have this option, as they are a smaller streaming service with high competition and low switching costs.

Finally, Walmart has the ability to generate revenue through the sale of multiple items whereas Hulu has fewer than five subscription services. “A critical part of a business model analysis is the determination of the sources of a firm’s revenues and profits” (Afuah & Tucci). Walmart’s website can be outsourced to different sellers who can contribute a commission cost to Walmart, and advertisement revenue could also contribute. Hulu’s sole sources of revenue are their subscription model and their advertisements. The fact that they have so many fewer revenue sources means that customer bargaining power is increased, and an increase in that customer bargaining power means that “they may be able to extract lower prices from a firm or force it to ship products of higher quality than the price warrants” (Afuah & Tucci).

3) 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?

Controls are in place to guide a company toward a beneficial result, according to Cash. "The purpose of control is to create a set of conditions that improve the likelihood that desirable outcomes will be achieved, despite changing technologies, markets, competitive conditions, and other features of an organization's volatile environment" (Cash). Companies must exert control in three separate categories to be effective in increasing these beneficial results: people, actions, and results (Cash). The pharmaceutical company in the PowerPoint uses results controls every year to distribute bonuses, and these results controls analyze individual and organizational performance with planned or expected performance and make appropriate adjustments (Cash).

The core competencies listed in the PowerPoint feature expected IT skills, decisiveness, accountability, awareness, teamwork, and more. These core competencies can be reclassified as measures, and a measure is a "quantitative estimate of the value of some variables, derived from available data" (Cash). The keyword Cash uses here is "quantitative", meaning a number value must be assignable. In this sense, the firm is using *qualitative* measurement standards. This is an option, sure, but the firm needs to clarify to its employees what constitutes a good sense of accountability, etc. According to Cash, for qualitative measures to be reliable, they must "consistently yield the same answer under comparable conditions" (Cash). Other measures should always be quantitative rather than qualitative, as hard numbers will always give a better image of performance than an arbitrarily defined standard to which employees are compared.

According to Cash, “appropriate control systems ‘fit’ the environment in which a firm operates, the people it employs, and its organizational structure” (Cash). Control systems differ company to company, and this specific pharmaceutical company should adjust theirs to more closely resemble the duties of the sales team. Quantitative analysis of sales numbers would be a much better way to measure and compare performance, as plenty of companies are finding it useful to engage in competitive benchmarking (Cash).This can incentivize an increase in performance, but Cash also notes that “this link (between management control systems and performance appraisal) cannot be treated as a simple, one-way mechanical relationship” (Cash). The firm must make promotion opportunities and other benefits clearer to their employees, and that’s my advice to them.