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**Appex Corporation - Case 2**

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**Abstract**

Appex Corporation provides management information systems and intercarrier network services to cellular telephone companies by utilizing innovative technology and rapidly responding to market needs. The generic strategy of Appex is differentiation. Their unique systems are targeted industrywide to all cellular telephone companies.

**Introduction**

By 1988, Appex Corporation started experiencing a rapid degradation of its ability to survive the exponential rate of internal expansion that resulted from the success of their innovative systems. What had started as an informal and closely knit group of less than 25 employees had devolved into utter chaos. The fluidity of innovative ideas, quick market response, and high communication bandwidth that Appex had experienced as a startup was rapidly diminishing. In hopes to remedy this problem, Shikhar Ghosh was hired as Appex’s new chief operating officer. Ghosh’s mission was to bring about and implement organizational structure that would allow Appex to not only survive the rate of its own expansion but to thrive from it and return profitability to shareholders. Ghosh’s initial survey of Appex was an informal organization with no underlying plan or structure, no product accountability, and with a fire-fighting mentality; “Everybody just did what they felt like” (Cash, 2012).

**Industry competitive analysis**

An Industry competitive analysis reveals the following about Appex Corporation:

* **Threat of new entrants:** Due to the generic strategy requirement of differentiation in this market segment, the threat of new entrants is relatively low due to the following factors:
  + A low volume of customers
  + Capital required to become competitive
  + Switching cost for Appex’s customer base
* **Threat of substitutes:** The threat of substitutes is relatively high since Appex’s systems and services could be easily imitated through reverse engineering and provided by other companies. The intangibility of Appex’s systems leads to the unavoidable truth that other systems can provide the same service.
* **Bargaining power of suppliers:** The primary supplier of Appex is skilled labor. Raw materials, other than development and transaction platforms, are not required. With there being no mention of difficulty in finding capable employees one is led to believe that the bargaining power of suppliers is relatively low.
* **Bargaining power of customers:** The bargaining power of customers, on the other hand, is relatively high. This is due to the low volume of customers in this industry.
* **Intra-industry competition:** In the past, Appex has been able to utilize the agility that comes with being a small, informal organization to outmaneuver competitors in bringing products to market. However, Appex’s expansion and resulting organizational instability are causing it to lose its competitive edge in the marketplace. Thus, one can logically conclude that the degree of intra-industry competition is steadily growing.

**Stakeholders**

* **Shikhar Ghosh**- As chief operating officer of Appex, Ghosh is highly invested in his responsibility to organize Appex’s underlying structure in a rapidly changing environment. Ghosh ideology aligned with the idea that “[in] successful organizations facing more uncertain and turbulent environmental conditions, the mechanistic approach to organization tended to be abandoned; more organic and flexible approaches to organization are required for successful operation” (Morgan, 2006). Ghosh believed that Appexs organizational structure should evolve by adapting to changes in internal and environmental conditions every time the organization grew by 50%.
* **Employees of Appex Corporation**- The employees of Appex are the most highly affected by changes to the underlying organizational structure. They must be fluid and capable in their ability to evolve with the organization. There is a history of resisting organizational change.
* **Electronic Data Systems and other shareholders-** Electronic Data Systems and other shareholders are financially invested in the success of Appex Corporation. They expect the underlying organizational structure of Appex to be one that’s best suited to profitability and growth within the industry.
* **Appex’s Customers**- Appex’s customers are also financially invested in the success of Appex Corporation. While their considerations are not so much for the underlying organizational structure, they expect the greatest degree of system quality and customer service from Appex Corporation. Thus, they are indirectly affected by the organizational structure of Appex.

**Alternatives**

1. **Do nothing.** By doing nothing, Appex Corporation will remain a divisional structure. Although they have benefited in the areas of accountability, budgeting, planning, and internal division communications, the divisional structure has presented its own set of problems. These problems include: issues in resource allocation, external division communications, cross-divisional conflicts, and inaccurate financial reporting. Due to these issues and their resulting consequences, remaining a divisional structure would require duplication of functions (such as with the database manager) increasing operating expense. Additionally, the effectiveness and ability of new idea generation and human resource utilization would continue to be fragmented due to the antagonism between divisions.
2. **Return to a pre-existing structure.** Throughout his time at Appex Corporation, Ghosh has implemented a variety of organizational structures. Each of these structures came with their own set of benefits and consequences. The structures implemented by Ghosh (in order) include: circular, horizontal, hierarchical, addition of product teams, addition of business teams, and divisions. However, there could be potential benefit in returning to a pre-existing structure at this stage of Appexs development. The circular structure first instantiated by Ghosh primarily failed because employees couldn’t relate to the structure, decision hierarchies were unclear, and customers became the enemy. However, it would seem logical that, at this stage of Appexs development, employees would be better suited to relate to the circular structure and decision hierarchies would have been more clearly established from the pre-existing divisional structure. On the other hand, a hierarchical structure seems to closely mimic Electronic Data Systems current structure which is described as being highly bureaucratic. Returning to this structure may help better align Appex Corporation with their new parent company.
3. **Implement a matrix structure.** The matrix structure is a harmonious blend between the divisional and functional structures. It provides the fluidity of “technological expertise within functions and tight horizontal coordination across functions” (Cash, 2012). The matrix structure is ideal in situations in which there’re environmental pressures from two or more critical dimensions and the task environment is uncertain and complex. Appex Corporation satisfies these conditions through its exponentially expansive growth and multiple divisions (ICS and IS) that compete for resources and require specialized processes. The third condition for implementing a matrix structure is that “economies of scale in the use of internal resources are needed” (Cash, 2012);this is true for Appex Corporation whose main divisions, intercarrier services and Appex Cellular Management Information Systems, are seeking to minimize the operating expenses associated with creating, maintaining, and supporting their respective application systems, while simultaneously maximizing human resource utilization. Under a matrix structure, “resources can be flexibly allocated and the organization can adapt to changing competitive, regulatory, and resource conditions” (Cash, 2012). The matrix structure recognizes the evolving and unique needs of an organization that encompasses a distinct variety of products and/or services. According to the *Contingency Theory: Adapting Organization to Environment*, “different approaches to management may be necessary to perform different tasks within the same organization” (Morgan, 2006).

**Recommendation**

The recommended approach to solving the evolving needs of Appexs organizational structure is to implement a matrix structure. “The fully developed matrix is team driven, in that priority is given to business, program, product, or project areas, with functional specialisms providing support.” (Morgan, 2006). The team driven aspect of the matrix structure will allow the fluidity for Appex to once again capitalize on that which made it great: its ability to swiftly react to market needs by creating innovative systems with haste and quality. “The focus on an end product rather than on functional contributions encourages flexible, innovative, and adaptive behavior.” (Morgan, 2006). Furthermore, the team-based organization that lies at the heart of a matrix structure “increases the adaptability of organizations in dealing with their environments, improves coordination between functional specialisms, and makes good use of human resources” (Morgan, 2006). As was evaluated in the Industry Competitive Analysis human resources (skilled labor) is Appexs primary supplier; utilizing a matrix structure enables the potential to effectively maximize human resources, resulting in a reduction of unnecessary operating expenses and, respectively, the bargaining power of suppliers.

To effectively implement the matrix structure team leaders (IE: matrix managers) must be chosen who possess the capability to serve the functional and divisional segments of their matrix by balancing and coordinating oftentimes conflicting demands that arise between the respective segments. Furthermore, new processes must be developed and put in place surrounding the matrix managers and their roles within the organization. Doing so effectively will require a complete analysis of the existing organizational structure. To measure the effects of the matrix structure and assist with its integration within the organization it is recommended to utilize an incentive plan coupled with quantifiable performance measurements. The incentive plan would effectively encourage employee participation in the new structure while allowing for accurate performance measurements (such as changes in operating expenses resulting from greater utilization of human resources). “Appropriate authority and rewards are stacked in ways that encourage dynamic teams. Otherwise, the organization gets the worst of both worlds, producing an inefficient form of bureaucracy.” (Morgan, 2006).

These benefits will positively influence all stakeholders. Ghosh will be satisfied by the fluidity of the matrix structure which effectively encapsulates adaptability coupled with greater human resource utilization; allowing him to focus on becoming CEO of Appex rather than future organizational structure implementations. Employees of Appex Corporation will be motivated by the incentive program that encourages their participation and be further heartened by the fact that a matrix structure dynamically allows for organizational evolution, requiring reorganization of matrices rather than a complete organizational restructuring to deal with internal growth. Electronic Data Systems and other shareholders will benefit from instilling the matrix structure in a variety of ways; for starters, the matrix structure requires the integration of a functional structure that shall align cohesively with the bureaucratic organizational structure of Electronic Data Systems, effectively allowing Appex Corporation to more easily integrate with their new parent company. Other shareholders will profit from the matrix structures ability capitalize on human resources between divisional and functional segments, effectively minimizing operating expenses with respect to maximizing innovation, product support, and principally, profitability. Customers of Appex Corporation will benefit indirectly from implementation of the matrix structure. Increased cohesion between divisions and functions shall allow for a greater degree of customer support that stems from increased accountability and clearly defined responsibilities between matrices.

# Bibliography

Cash, e. a. (2012). *Building the Information Age.*

Morgan, G. (2006). *Images of Organization.* Sage Publications, Inc.