A – 15/30

In this week’s case study, we are confronted with the business challenges faced by two companies, the solutions they adopted, the different strategies they followed and the benefits from their decisions.

The main business challenge was the communication between thousands of employees and with customers around the globe, which impacted both productivity and efficiency.

One concern was the cost of videoconferencing systems. The systems that existed previously were expensive and required high ownership costs (rooms, hardware, software, training, etc.) and therefore were mainly used by big companies.

Recent technological advances have made these systems more accessible, with less installation time and easily usable in any location including mobile phones, with a fraction of the power needed, thus leading to a much lower cost of ownership.

The information system provided solutions in three main areas, management, organization and technology.

In this week’s case study, we are given the examples of two companies. The company’s managements had to choose if they would invest in a system that would allow them to mitigate the communication problem they faced or not, and if so, which system to choose and if they would place cost over quality or not.

In my opinion, both companies made the right decision. Produban and King County, Washington, chose to invest in the technology available to them and adapted to their budget, giving them an advantage when compared to other companies. While Produban chose a more high-end solution, albeit more expensive, it also had a bigger “client” base to handle, while King County, with a smaller “client” base chose a more affordable option to match their budget. Either way, both strategies gave them an effective collaboration tool.

In terms of organization, employees were given better communication tools that allowed them to communicate with each more effectively, with the new systems facilitating real time collaboration time and effective document storage and handling.

In terms of technology, it all came down to price versus flexibility, with the quality of audio and video being state of the art in both solutions, the big differences being the collaboration tools and enhancements provided by each system but with a common goal – collaborative communication.

In conclusion, evaluating the benefits of the solutions selected by these two companies, one can state that having made the necessary changes (technological, organizational as well as management) to adopt the system of choice each company was able to implement globe-wide real-time collaboration, thus improving internal corporate processes, company culture, and certainly reduced operating and ownership costs.

The difference in the two strategies discussed also show that a variety of solutions can currently be found in the market that can be tailored to any company’s budget and size, while providing the required collaborative functions that can give it the edge over its competitors.

B – 28.80/30

**Business Challenges**

* Unprocessed and unprofitable data
* Lack of Product Differentiation
* Commoditized Product
* Reduced Customer Base
* Breach of customer privacy

One of the business challenges is unprocessed data collected from other mobile apps, this information if not processed can’t generate profit. Both companies presented a reduced customer base due to their commoditized products and lack of product differentiation.

Since both companies collected information about their customers, they needed to make sure no privacy laws were violated.

**Management**

* Decision to invest on new products
* Monetize Data
* Allocate new budget for a new IT department
* New Customer Retention Strategy
* Joint Ventures Strategic Partners

The new data requires an IT department to analyze it so the new department will need a separate budget. The service provided by the company will bring new customers which the company will want to keep and so could implement a Customer Retention Strategy. The data analyzed provides information that could be sold to joint venture partners through advertising, making sure to comply with international policies.

This data can be monetized and that brings responsibilities including developing an information policy, planning for data, overseeing logical database design, and monitoring how information systems specialists and end user groups use data.

**Organization**

* Define new procedures, new database processes and workflows
* Improve customer engagement
* Dynamically change prices (based on data collected)
* Hire New Talents/Skills about IT or Train/Upskill

With a new layer of service these companies will have to change their workflows and procedures, since an organization’s data model should reflect its key business processes like data analysis. This implies hiring new talent or upskilling staff. The service provided allows for a closer relationship between the company and its customers, thus improving customer engagement. The data collected allowed Con Edison to dynamically change prices according to customer behaviour.

A current example are car companies around the world that need to adapt to the new market. The cars today no longer just travel but also provide systems of protection, comfort and additional information about the vehicle. This brings pressure to companies to start changing their business model.

**Technology**

* New Sensors like Smart Meter (devices to collect data)
* Databases and analytics software
* Apps providing information to customers
* Storage solution
* Networking and bandwidth

In this week’s case study, Con Edison invested in smart meters. A smart meter is a digital meter that communicates between a residence or business and Con Edison through a secure wireless communication network. The smart meter transmits data to a system of access points on utility poles, which send the usage information to Con Edison.

On the other hand Under Armour took advantage of the data from mobile apps. Analyzing it helped improve their business.

**Information Systems**

* Improve customer engagement by providing customized information
* Advertising, data aggregation
* Dynamic Pricing
* Integration with partners

The Virtual Company Model (Management Information Systems Managing the Digital Firm by Kenneth C. Laudon, Jane P. Laudon, Page 107) provides networks that can link people and ideas. These networks enable a joint venture with a strategic partner which allows the distribution of  products and services without being limited by traditional organizational boundaries.

**Impact**

* Improved revenue
* Captured new customers
* Product Differentiation / Improved Competition
* Real Time Monitoring /Efficiency/ Reduced Cost/ Less Complaints
* Expanding the market

In Con Edison’s case, the information system acquired enables real time monitoring of a customer’s consumption and will let the company know as soon as a customer loses service. The timely notice increases efficiency and thus reduces complaints made by indignant customers which in turn will reduce costs.

C – 26.20/30

**Business Challenges**

* Growing uncertainty
* Lowering consumer expenditure
* Long decision periods
* Lack of timely data

The main business challenge is the lowering of consumer expenditure, which is in part due to the growing uncertainty of the global economy. The long decision periods present in the company’s internal processes and the lack of timely data needed to base those decisions on, limits the quality and speed of the decisions the company needs to make.

**Management**

* Operational efficiency strategy
* Focus on optimizing the value chain
* Decision to improve analytics and their business warehouse
* Identify opportunities

In order to protect the company’s profit margin in these uncertain times, optimizing the value chain was a priority. Kraft Heinz decided to focus especially on optimizing the supply chain.

To optimize this process however, the company needed to have the necessary data and analysis and so, decided to improve their analytics and business warehouse in order to be able to implement a new operational efficiency strategy that could in turn help them identify opportunities to protect their profit margins.

**Organization**

* Training people
* Lean operations
* Increase data on the processes

To implement all these changes the company decided to do, it was also necessary to train people to adapt to these new systems and to optimize the system and it’s databases.

An optimized system and database made for leaner operations and processes, which in turn allowed for the increase of data needed for processes, improving their quality and speed.

An example of the power of timely and correct data in an organization can be seen in the key to the success of the first presidential campaign of Barack Obama.

According to the book “The Audacity to Win”, written by Obama’s campaign manager, David Plouffe, the data obtained from the “grassroots” gave the campaign a wide view of the field, allowing the formulation of a better strategy.

**Technology**

* SAP Business Warehouse / ERP
* Data Warehouse decreased from 18Tb to 9Tb
* Optimized the database
* Business Warehouse performance changed to SAP “HANA”
* SAP BusinessObjects in Windows environment

The Business Warehouse that the company Kraft Heinz was using did not meet their needs and so, the company invested in the BW SAP “HANA”.

The company also optimized their database, decreasing the amount of data stored from 18Tb to 9Tb, deleting data that wasn’t needed and relocating data that served a different purpose.

**Information Systems**

* New and Optimized Data Warehousing
* Optimized Data Warehousing access, both loading data and optimized processes
* Integration between ERP and Data Warehousing
* Multidimensional capacity

The ERP provided by the system the company contracts allows for an optimized data warehousing solution, which decreases the time needed to load data onto the system and in turn optimizes the processes it implements.

With the integration between the ERP and the data warehousing that the system provides, the company’s CRM now has access to a multidimensional capacity which improves the quality of it’s reports.

**Impact**

* Improved reporting
* Faster decisions
* Improved decision quality
* Improved product margin
* Increased flexibility of response
* Reduced costs of data warehousing
* Improved risk management

The data solutions the company implemented allowed for the improvement of the reports, which in turn made for faster decisions with improved quality. The solutions found also reduced the costs of data warehousing.

By making faster and better decisions the company is now able to identify the opportunities to improve their product margin, and to have a much more flexible response, improving in turn their risk management.

D – 26.80/30

**Business Challenges**

* New technology, the cloud.
* Cybersecurity strategies or practices, and the responsibilities spread between the customer and the cloud service provider.
* Data security breaches devalue records, business plans, and trade secrets, and bring legal liability to the firm.

This case study focuses on the adoption of cloud technology and the cybersecurity issues that come with it.

The challenges surround cloud technology. How to manage it, what services it provides, and how the responsibilities of the management of cybersecurity are distributed between the customer and the provider.

**Management**

With the changes that the adoption of cloud services brings, companies now have to decide on upskilling their IT workers and adjusting the company’s IT strategies, as well as, implementing a firm-wide mandatory training of the new cloud tools. The upskilling and hiring decisions are strategic since they bring risks to the company.

To manage risk, companies like Amazon decided to innovate their security controls configurations mitigating the risk of a security breach. These decisions allow the company control over the level of exposure of its data, avoiding litigation risks.

**Organization**

To implement the management’s decisions, companies need to develop new processes that integrate the cloud services such as moving all the relevant data and applications to the cloud. Employees must also learn to use new toolkits, manage cloud security, configure and launch cloud instances and manage access controls. There's also a need to develop new tools for IT internal management.

To increase the customer’s usability of the cloud service, there must be a good relationship between the provider and the customer. This is provided by open lines of communication, offers of training on the new tools (e.g. AWS or Azure’s online cloud service courses), and discounts in costs to loyal customers.

**Technology**

* Software security patches upgrading.
* Adopt cybersecurity enhancements tools (e.g. Zelkova, Amazon Macie).
* Default encryption for buckets.
* Amazon Dashboard S3 improvements.

When updating their systems many companies upgraded their software security patches and adopted cybersecurity enhancements tools. The implementation of these systems provides better cybersecurity.

Amazon implemented a simple change to its dashboard by highlighting "*public*" in bright orange which allowed users to easily see the status of an Amazon bucket.

In our opinion the best course of action is to try to look for internal solutions first and only if none are found, look externally into what others can provide since sometimes the simpler the solution the better it is.

**Information Systems**

The final system is capable of integrating with the cloud providers, enables automatic patch installation, comes with standardized security settings to avoid a high rate of employee errors. It also has a user-friendly dashboard, with data access control status indicators (e.g. red for public and yellow for private) and integration with cybersecurity tools.

**Impacts**

* Improved risk management, which leads to reduced costs with financial and legal penalties.
* Enhanced customer trust, intimacy, and life cycle.
* Improved relationship with the cloud provider, i.e. better contract management.
* Better agility due to upskilled resources,  which impacts sales and productivity.
* Better internal overall staff efficiency.
* Prevents security breaches with the new preemptive features and interface changes.

E – 27.60/30

**Business Challenges**

* Limited Company Growth
* Increased Digitalization of the Business Environment
* Manual Paper-based Work
* Old Non-integrated Technology

The challenges mentioned above are all centred on the company’s inability to grow in an increasingly digital business environment. Their processes are done manually and on paper while other companies are turning digital and resorting to integrated technology. This means that their competitors have an improved capacity over them, which does not allow for the company’s growth.

**Management**

* Decision to Improve Technology and the Business Finance Function
* Refocus from Transactions to Data Analytics and Decision Support
* Decision to Streamline, Simplify and Redesign Business Processes
* Decide which Technologies to keep

The company evaluated the trade-off of technology to their business, by deciding which technologies to keep from the old system and which to improve, namely the business finance function.

By improving the technology, the company was able to divert its attention from transactions and refocus on data analytics and decision support thus allowing improved growth. With all the information now accessible to them they could streamline, simplify, and ultimately redesign their business processes.

**Organization**

* Non-efficient Processes
* Streamline Processes
* Manual Inputs
* Collaboration with Deloitte

The company had non-efficient processes, not only due to the bottlenecks that existed but also because their lack of integration meant their inputs were manual, which made them human error prone.

The company implemented the “Vision to Value” initiative, with the goal of streamlining and simplifying the company’s processes, so they had more time for analysis and reporting work. The transition from the old systems to the new ones was done in collaboration with Deloitte Consultants.

In my opinion, the main organizational change was the transition from manual and paper-based work to the use of integrated technology, which allowed the streamlining and simplifying of business processes.

**Technology**

* Legacy Systems migrate to ERP and SAP S/4HANA
* Optical Character Recognition (OCR)
* S4 Integration with Legacy Systems

The company selected some of the critical functions they wanted to improve and migrated them from the legacy systems to the ERP and S/4HANA. The integration between the legacy systems and the new S4 software aided the transition. The SAP system also enabled a centralized invoicing process via OCR readers, which allowed for better chargeback management.

**Information** **Systems**

* System-generated Tracking of Chargebacks
* OCR Handing Capability
* On-demand Intra-process invoice retrieval
* Non-SAP Legacy Integration

The new system allows for automatic tracking of chargebacks along with OCR handling capability and on-demand intra-process invoice retrieval, which all improve the quality and speed of chargeback management. The integration between legacy and SAP systems made the transition simpler by maintaining the functions that worked.

**Impacts**

* Improved Customer Relation
* Improved Decision Making
* Reduced Costs
* Improved Efficiency
* Improved Scalability
* “State of the art” Operations

The simpler chargeback management improved customer relations and reduced costs related with possible penalties. The time saved improved the efficiency of the company by freeing employees’ time.

The new time available allowed for data analytics and improved decision making and thus improved scalability, which allowed the company to grow.

F – 25.40/30

**Business Challenges**

* Support business processes within a small time frame
* Inherited 50 or 60 disparate legacy systems that were supporting mission-critical processes

After having inherited 50 or 60 disparate legacy systems that supported mission-critical processes from their mother company Abbott Laboratories, AbbVie faced the need to support these business processes on their own, within a 3-year time frame, since at that time they would lose access to the current working systems, that were under a transitional services agreement (TSA).

**Management**

* Decision to keep legacy systems or update platform
* Manage the TSA
* Decision to create standard business processes for all affiliates
* Decision to hire IBM Global Business Services consultants
* Change management processes with transparency and training
* Question existing processes in order to streamline many of them

AbbVie had to make the decision between keeping these legacy systems working on their own and making the investment to update the platform, all the while managing the TSA.

After choosing to update the platform the company decided to create standard business processes to support their facilities with a single instance of SAP ERP across the globe. To do this AbbVie selected IBM consultants to guide the global SAP deployment.

**Organization**

* New organization model that includes business processes outsourcing centre of excellence and regional shared services
* Standardize end-to-end processes
* Capturing of implementation metrics
* Use of transition leaders to bridge technology and business teams
* Verifying data accuracy
* Allowing the software to be customized only for country-specific requirements
* Train users on the template and familiarize them with any process changes

In terms of organization, we can see several examples of global organizations that have implemented several aspects mentioned above, the easiest implementation to be verified is the new organization model, as the structural change of the business processes is changed according to the need for regionalization of the same.

As a more concrete example, we can look at the example of McDonald's, which, depending on the region of the world where a restaurant is located in its franchise, the requirements for snacks that are for sale change according to the eating habits of the target audience it intends to reach, also providing the customer a sense of well-being with the integration of systems of trust in the products that the customers themselves can prove, such as the open kitchen demonstrating the existing processes to the customer.

**Technology**

* 5G/4G legacy systems
* SAP ERP
* Country-specific specified software
* Data migration from legacy systems (to global SAP ERP system)

AbbVie used an instance of SAP ERP as a central technology linking multiple countries for data storage. This instance was also essential for migrating data from different legacy applications.

Furthermore, before there was the migration of data from legacy systems, a Data Warehouse was used for its secure storage.

Finally, the company standardized end-to-end processes, like procure-to-pay, order-to-cash, record-to-report, and warehouse management, using a global SAP template, and allowed the software to be customized only for country-specific requirements.

**Information Systems**

* Provides key metrics, business metrics (eg time to create more customers)
* Dashboards for managers to look at different regions more effectively

Global information systems pose challenges because cultural, political, and language diversity magnifies differences in organizational culture and business processes and encourages the proliferation of disparate local information systems that are difficult to integrate. Typically, international systems have evolved without a conscious plan. The remedy is to define a small subset of core business processes and focus on building systems to support these processes. Tactically, managers will have to coopt widely dispersed foreign units to participate in the development and operation of these systems, being careful to maintain overall control.[1]

**Impact**

* Higher levels of transparency and agility
* A better-integrated system that enables strategic decision making
* Improved business efficiency (due to corrective actions)
* A more accurate system reporting

Due to the data extraction process and their quantitative analysis, AbbVie has become a reference for its effectiveness and transparency in this process. As such, country-specific transition leaders trained users from various countries to adopt this template and familiarize them with any process changes, helping the company to quickly address change management issues as they arose. As a result, new metrics were adopted in order to facilitate the analysis of business managers in each country for possible decision-making through reports with more accurate data.

Finally, this entire process favored AbbVie having greater business efficiency, being able to operate as a single company in all countries.

[1] Management Information Systems Managing the Digital Firm by Kenneth C. Laudon, Jane P. Laudon, 16º edition, Page 588