Systems Analysis of Salted Chef

Information Systems Design 4850

By: Nicholas Lin

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Questions 8:

Often user biases toward the proposed system, political climate within the organization, interpersonal problems etc. will make systems analysis and the design of the system difficult. Describe the circumstances and how your group is planning to overcome these problems. For example, you may be asking employees to help build their own guillotine.

Salted Chef is a nationwide online service promoting the unique opportunity for consumers to have fresh and healthy food cooked in their own house right before their eyes. Salted Chef offers a variety of meals for different diets and is always striving to create the best meals for their clients. Many clients are happy with the current service and operation of Salted Chef but from an internal perspective within the company, there are several processes that can be improved and worked on to increase the efficiency of Salted Chef. This paper hopes to bring light to some of the problems our group, Nova Inc., found during our analysis and our solutions to them.

In order to better serve Salted Chef, our design team, Nova Inc., decided to reach out to several individuals within the company to gain insight within the company. We initially wanted to do this in order to get several perspectives on how the company was being run and managed. As well, we wanted to find out how Salted Chef’s current systems worked and see what ideas Salted Chef employees would like implemented. As outsiders to the system, we did not understand the flow of data and processes throughout the company and needed to learn more processes before we could establish any solutions. Our findings from these interviews proved very crucial to understanding the issues with the current processes and what could be changed to make Salted Chef better than how they currently operate. Nova Inc. interviewed several individuals such as the current co-owner, an employee from the menu team, and a couple chefs. We wanted to interview employees from all branches (management, menu team, and chefs) within the company as it would give a good representation of how well information flowed up and down the chain of command. For example, the co-owner of Salted Chef was aware of an issue where the menu team had slow response times on revising menus after a customer requested a menu change. However, the co-owner lacked the knowledge that the process consisted of entirely scrapping the current menu and creating a brand new menu. The team would then have to convert the menu into a pdf format and email it to the client. If the client wanted to change even just a portion of the menu again, the menu team would have to go through the same processes. This led to slow response times, unnecessary work and would be alleviated if a proper system was implemented to streamline the process. After finding these issues and barriers within Salted Chef, we were better equipped to tackle the problem at hand which would eventually lead to a database and website for Salted Chef employees to use.

Another item we found during our interview with all the employees was the lack of any political climates that affected the company. Nova Inc. believes this is due to how small the company is and how being in a smaller environment meant employees had to rely on one another in order to ensure the company ran smoothly. As well, the company is still rather relatively young and has not developed any habits that have negatively impacted the company thus far into its lifespan. Since the company is small, they are relatively unknown to the majority of individuals and drastic decisions within the company would have a very little effect on their surroundings. Nova Inc. was happy there were no political climate issues when we began talking to employees. This meant we could focus on just the processes and not have to navigate through niche issues within Salted Chef. Since Salted Chef operates in a very niche environment, (mainly upper middle to high-class clients) they currently do not have any form of competition. The only companies that might compete with Salted Chef are companies that ship fresh ingredients to a client’s house for the client to cook. Outside of these companies, there are no immediate threats to Salted Chef where a chef will cook for a client outside of other small niche companies. Since the company is small and young, advertising their service has mainly been word of mouth. Political factors do not have an immediate effect to Salted Chef and if they were to affect Salted Chef, these factors would also be impacting larger companies much more heavily.

Taking into consideration employee inputs, we began to plan how to create a better system for Sated Chef. To prevent any miscommunication or issues, we wanted our program to be as unobtrusive as possible. Nova Inc. wanted to create a program that wouldn’t change how Salted Chef operated. Instead, we wanted to focus on how we could streamline the processes to make employees more efficient with their field of work within the company. As stated by the co-owner of Salted Chef during our initial meeting, the company has a solid foundation and has found its customers who regularly use their service. While the co-owner is an entrepreneur, his main goal is to keep Salted Chef relatively the same to devote more time to other projects or start-up companies that require the proper guidance and nursing. He has no plans to grow Salted Chef into a larger company at the time we interviewed him and did not want a system or application that would change how Salted Chef operated but knew there were some improvements that could be made to the system. With this and employee’s implementation requests, Nova Inc. decided to create a website for Salted Chef. We decided this was the best solution because their current system was struggling significantly to pass the correct data to the required individuals quickly and efficiently. This was severely affecting the availability of the data and harming workflow. This issue was brought to us through all the branches within the company. Since the co-owners generally performed an initial phone interview with the client to find out their diet, allergies, address, etc. the information was trickled down from management and some employees had trouble finding and accessing the information they needed. Nova Inc. believes the website serves as a great platform since all the data would be stored in databases instead of the current format which consisted of excel, word, and pdf files that were constantly out of date and changing. The website would solve the immediate issue of information disparity and keep the necessary data stored in a single location. This would prevent outdated files and large discrepancies or clones of the same file. We wanted to make this a top priority because of all the unnecessary data clutter that was being made as well as to streamline the entire process.

Lastly, Nova Inc. aims the website to aid the employees, not hinder or replace them. Within our data flow diagrams, we are having problems altering the flow of the processes that are already in place. Unlike creating a new flow or process, Nova Inc. will be creating a system that does not interfere with current operations. The overall steps are not different, the only difference between the current state and the proposed website state are how the data is input and how it is retrieved later. The website will only be storing the data on a database that will be accessible at any time. This will resolve the largest issue within Salted Chef where employees do not have the full context or information required to fulfill their jobs and roles. By keeping the data in one location, anyone will be able to view or edit it (depending on their account privileges) and can guarantee the data they manipulate is the most up to date. Nova Inc. is aware of the potential power we have to drastically change the system and potentially automate Salted Chef’s entire system but we are not going to create a tool that will end up harming employees or causing distress between the system and employees. Employees will be controlling the system and using it at their discretion. Nova Inc. plans to steer the website in a direction that will only enable employees for the better.

Nova Inc. used various methods in order to learn and develop a system properly for Salted Chef. We used various techniques and interviewed with employees in order to gain insight into the company. Unlike Nova Inc., the employees we interviewed knew the environment they were working in the best and would give the best viewpoints of how we should create our system to best fit their needs and requirements. Nova Inc. will take precautions to ensure the system we are creating would not kill the jobs of already existing employees. Instead, it is going to be a tool that does not change the processes but enhance the quality and reliability of the data across all branches of Salted Chef.

Question 9:

Many of the aspects of systems analysis and design are user-focused. Describe how your group has maintained this focus.

During our initial interviews with Salted Chef employees, we noticed a large age discrepancy throughout the company. Salted Chef employee ages ranged significantly (25- 45+ years old) and brought up an important question: Would employees find our interface hard to navigate? Proven through many businesses, people are not open to change especially if they are used to how certain operations are performed. According to a study done by the *Harvard Business Review*, the main reasons why individuals do not adopt new methods or changes is due to various factors. Some of these factors are issues like participation, resistance, social change, staff interests, and the roots of the trouble (Lawrence). These issues are prevalent in any company and changes are rarely adopted with open arms. From our interviews of all the different branches, we would like to look into how we can change Salted Chef’s environment, how much we could change it, and how adaptable they would be to the new changes. First, we want to tackle the participation issue within Salted Chef. Since Salted Chef is small with roughly 5 employees excluding chefs, Nova Inc. is deciding to advertise the project to Salted Chef as a project that is beneficial to the company. We will be framing how we need the employees’ help to get the new program working efficiently. Nova Inc. will be employing a “total participation” method that will bring the company together to work on the project. By using the total participation method it promotes teamwork and results from studies have proved “a smaller initial drop in output and a very rapid recovery not only to the previous production rate but to a rate that exceeded the previous rate. In these groups, there were no signs of hostility toward the staff people or toward the supervisors, and there were no quits during the experimental period.” (Lawrence). Studies found that using a “no-participation” method led to “deliberate restriction of production, and lack of cooperation with the supervisor.” within Harvard Business Review’s study (Lawrence). By using the proper participation method, Nova Inc. will be much more successful in onboarding employees to the new website.

Another key part of businesses not adopting new methods was the resistance employees posed to adopting a new process. In the case of Salted Chef, Nova Inc. noticed employees were locked into set mindsets to perform their processes. These processes included items such as huge Word and Excel documents that were sent as email attachments to employees. While Word and Excel are very useful programs, when a lot of data needs to be viewable and changed at any time, the chance of having an outdated file that is not accurate is very high. Nova Inc. and the employees noticed this issue and are planning to change it. However, some employees are hesitant for a new method since they do not want to spend the time to learn a new system for something that already works for them. As stated by the *Harvard Business Review* “signs of resistance can serve as a practical warning signal in directing and timing technological changes.” (Lawrence). Salted Chef is using an outdated system and the problems with using it are becoming clear to employees that a new kind of system or technology is needed.

Initially, after the first meeting with the co-owner, Nova Inc. wanted to create a mobile application for Salted Chef but the co-owner thought this would be too much of a hassle since employees would have to download the application to their smartphones and learn how to navigate it. Due to this, Nova Inc. then decided to create an easy to use website to prevent unnecessary learning. We also aim to make the navigation as fluid as possible. The main goals of the website consist of having the website be both intuitive and easy to navigate. We wanted to utilize buttons and gestures in order to make the website as seamless to navigate as possible. We took design and structure cues from places such as Android and iOS devices for the mobile website. We looked into website elements such as button placements, hamburger menus, and sidebars for quick navigation to make the user feel in control of the website. We also decided to take a minimalistic approach to the website to prevent cluttering the website. This allowed us to focus on the functionality and reliability of the website. The lack of clutter is also a benefit since the information is being displayed on a mobile device. When more information is present on the screen, the data can be hard to interpret and users do not know where to click and navigate within the website. By maintaining a clean, fresh and structured appearance, Salted Chef employees can focus on the context and fluidly navigate the website with no hassle. If users do run into issues with the website, we will be providing a user manual to explain certain elements.

We also plan to use color to our advantage within our application as it can create cues such as attention to warnings or emphasize viewing information in a logical organization. We plan to use colors to pull the website together to create a cohesive theme throughout the interface. Some trouble we faced during the early stages of the website were issues such as not being able to differentiate what was a clickable object and what was not. Nova Inc. had trouble displaying the information in a way that was intuitive. To remedy this, we used colors and elements such as buttons to differentiate what was clickable what was just information. Now, information was easily viewable and users were able to visually see what items were clickable and what items purely existed as text or information on the screen. During this phase, we also plan to have colored warnings to emphasize to users a text entry field is very important or the data entered in the field was not the correct format. Although not necessary, by adding a colored asterisk and giving an example format on how the field should be filled out and results in a cleaner format that is stored in the database. This allows a more concise and consistent standard format for the field within the database. As well, each page is formatted so the user understands where they are at all times. We plan that when a user selects a certain module, the name of the module stays at the top and smaller fields are introduced that have easily readable descriptive fields that users can fill out. These small but important changes will make the website usable and entice employees to use the new format.

Lastly, Nova Inc would like to focus on the usability of the website. Usability for Nova Inc. can be determined in three ways: Speed, Satisfaction, and Accuracy. Focusing on speed, we want to limit the number of transitions and pages within the website. This means there would be less downtime between page clicks, allow employees to navigate to pages quickly, and would improve the responsiveness of the website. We believe employees would prefer a non-transition heavy website because the website isn’t for clients. The website is being made for employees who value time and want information given to them in an instant. Employees will not necessarily care about the effects or aesthetics and will instead focus on the efficiency of the website. Focusing on satisfaction, Nova Inc plans for the website to be enjoyable to use. Since employees will be moving away from the traditional pen and paper or excel documents, Nova Inc. believes Salted Chef employees will enjoy and frequently use the website. Employees will have an easier time entering information and be able to save to a database that is accessible anytime. This is the main benefit a database provides and will definitely please employees. Unlike previous methods where information about the client and their menu was trickled down through management, the website provides all the information at a glance which will improve the efficiency of employees. Nova Inc. sees the most satisfaction comes from the availability of information at a moment’s notice. Finally, accuracy is important as well if a company wants to be efficient in their processes. For Salted Chef this meant the information that employees put into the database and retrieve must be accurate. If the data is not accurate, employees will have to retrace their process and redo certain steps. To prevent this, Salted Chef will be implementing a formatting system that is set to reject information if it is not entered in the required way. Some examples of this would be fields such as emails, dates, and having fields be non-nullable. By using specific formatted fields, we can prevent bad data from being entered and maintain a database that will be clean and accurate.

Overall, by using the above methods as described, Nova Inc hopes to create a well-rounded website that is enjoyable for employees, functional, and accurate. Employees will be drawn to the website because of the ease of use and the plethora of information that can be provided at an instant. We aim for a website that will be easy to navigate and add styling that will generate cues for users to select buttons or actions in order for it to be easy to navigate and for users to feel comfortable using the site.

Source Citations

Lawrence, P. R. (2014, August 01). How to Deal With Resistance to Change. Retrieved November 24, 2018, from <https://hbr.org/1969/01/how-to-deal-with-resistance-to-change>

Trafton, A., & MIT News Office. (2015, March 06). The rise and fall of cognitive skills. Retrieved November 5, 2018, from <http://news.mit.edu/2015/brain-peaks-at-different-ages-0306>

Valacich, J. S., & George, J. F. (2018). Modern systems analysis and design. Singapore: Pearson Education South Asia Pte.

Yılmaz, D., & Kılıçoğlu, G. (2013). Resistance to change and ways of reducing resistance in educational organizations. Resistance to Change and Ways of Reducing Resistance in Educational Organizations, 1-19. Retrieved December 2, 2018, from <http://iassr2.org/rs/010103.pdf>