Designing smart dashboard system towards digital leadership in franchise organizations

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Abstract. Although franchise considered as a business system that has many features, that does not mean this business concept does not have weaknesses. Indeed, it's been hundreds of years the format of this business is running. Even today the franchise business is getting its place as a proven business format and successfully delivering thousands of business brands across various continents and times. If the franchisor is less selective in choosing a franchisee, they may damage the franchisor's image and business brand as a whole. The reason is if one franchisee does not comply with the operational standards provided by the franchisor then results in customer disappointment, it is not impossible that this customer will perceive all other outlets as bad. Using an innovation assimilation strategy framework, this paper describes how franchise organization used its implementation of a Smart Dashboard System to improve performance, allows franchisors to keep a handle on their franchise accounts and put it on a path towards digital leadership.

1. Introduction
Franchising is business opportunities [1-2], offered by the owner (producer or distributor) of a service or product trademark [3-4], by giving individuals exclusive rights to make sales, distribution or services of a product within the local scope [5], so that business owners can receive profits or royalties from businesses managed by others locally. Individuals or businesses that provide business rights are called franchise owners or franchisor, and individuals or business that is given the right to produce or sell products or services locally called franchisee [6-7]. Franchises have emerged for years as a way to enlarge business and gain profits for entrepreneurs but to make franchises sustainable and globally its need strategy to manage franchises include franchisor and franchisee, nowadays the best way tool to manage relationship between franchisor and franchisee is using information system and information technology. With an increasing interest in IS/IT [8], many organization use business intelligence for parameter of decision making and the dashboard has become an important part to present data on one page so that users in an organization can understand a glimpse of what happened in their system [9-10].

In real life, dashboards are generally used in airplanes or in cars used by users to display important information such as speed, oil level, temperature, fuel stock, etc. to help users in making decisions. In the scope of IS/IT in organization [11], the dashboard is used to provide a brief summary of information to the users about performance of organization and also used to support decision making. In the context of organizations, managers use dashboards to support their daily tasks for the organization [12]. Made through analysis of data, dashboards are used to represent key metrics that are important for decision makers towards digital leadership. Dashboard can provide powerful means to present information but
most dashboard fail to communicate effectively and efficiently because of poorly design [13]. This study is focused on designing smart dashboard system in franchise organizations using design thinking. Design Thinking is a methodology used by designers to solve complex problems, and find desirable solutions for clients.

2. Methodology

In this study, the method used in designing dashboard based on Design Thinking. Design Thinking refers to imagination, logic, intuition, and systemic reasoning to explore the possibilities of what could be, and to create desired results that are beneficial to the end user. Design thinking is a method for solving problems with practical and creative solutions, with the aim of increasing results in the future.

![Design Thinking Process Diagram](image)

Figure 1. Design thinking process diagram.

The Design Thinking Process as shown on figure 1 are:

- Scoping: The Scoping Phase aims to connect customers and stakeholders to be able to interact and plan project members from different teams.
- Research: In the research phase, designers begin to look for information that can be incorporated into the creative process. This research can be quantitative, with statistical numbers about size and the composition of the target group, or qualitative, with information about what the user group buys or consumes and what their lifestyle looks like.
- Synthesis: Synthesis is the stage where the team works to see the connections of hundreds of facts obtained at the research stage and draw conclusions and find solutions based on their understanding of the problems obtained.
- Ideation: During the ideate stage, the design team utilizes the results of the research that has been obtained to establish boundaries during the define phase. This information is used to make ideas. Idea methods including brainstorming, sketching ideas, adapting tried and tested designs, taking a top-down analytical approach that focuses on products, services or companies or a bottom-up approach that focuses on customers or users. When the ideate stage takes place, it becomes clear whether there is any misunderstandings or deficiencies in the definition phase and whether an adequate level of research has been carried out.
- Prototyping: The Prototype Mode is a recurring stage involving art, intended to answer questions that make you closer to your final solution. The prototype is done through several iterations where feedback from users is combined and changes are made to produce an effective final solution.
- Validation: At this stage a prototype is used which has made the final project results for conversion more in-depth discussion with end users. The team goes down to every detail of the
validation process including end-user planning, activities, creating validation scripts, denied the prototype to be invited get quantitative and qualitative feedback from the validation session.

- Implementation: We mark the closure of the project when we have a design blueprint well received by our stakeholders and ready for production.

3. Results and discussion
At this stage, Design Thinking implemented to design smart dashboard system, at the beginning, designers took a comprehensive and holistic approach to a problem as a whole instead of settling for narrow problem definition.

![Diagram of Design Thinking Dashboard Development Strategy Model]

**Figure 2.** Design thinking dashboard development strategy model.

3.1. Scoping
Team members meet for 1-2 hours every day in the first week to be used with a mindset and the process. Team Sharing understanding using stories. There are no documents or the presentation is in the picture, end users meet with teams directly or remotely for research.

3.2. Research
The team divided themselves into two groups with each playing a role of initiator, observer and facilitator to spend significant time framing the right questions to ask end users.

3.3. Synthesis
Make one of the participants the user who aims to direct the discussion from the user's point of view and make it decision if there is a conflict that arises. Being to think and act as a group aims to think of a group needed by someone to listen to the mind and himself to listen to others, build on each other, and articulate them appropriately.

3.4. Ideation
Inviting experts, SMEs, customers and stakeholders to exchange ideas, in this stage team get ideas for developing dashboard with modul defined using strategy for achieving goals.
3.5. Prototyping
On the last day is validating the product by testing the prototype to real user. Action to take on this day are listing key question, preparing observation room, test audio/video live streaming and recording when user test, assign court report and scoreboard.

3.6. Validate
Validation of presentations and presentations to client’s / users short validation session and action driven. Users interact with the prototype quickly and go with them intuition instead of spending time thinking and interpreting prototypes.

3.7. Implementation
The teams showcase their work in the form of an interactive demonstration, role-play or as a narrative. We keep the presentation in a shared link in clients space and demonstrated the same to different geographical locations to the stakeholders.

4. Conclusion
A digital dashboard is a reporting tool that presents key metrics in a visual interface that is easily interpreted. It provides a glimpse of the latest important information about the project and initiatives. Transparency provided by a digital dashboard can reveal emerging trends and make it more difficult for projects that are performing poorly escaped attention, and it is easier for the government to focus its efforts on the projects that are most needed. Research also discussed how design thinking was implemented for the implementation of digital dashboard projects in franchise organization.

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