Design Thinking and Sustainable Product Innovation at Handy Furniture Zone

Posted on October 10, 2022

Introduction

We all need to make selections every day. This selection can be due to an open problem that needs to be addressed or, in reality, a question of whether to shop for new shoes. Moreover, problems can be easily solved by employing easy equations. Or you could need to formulate the trouble first because the complexity is too vague to recollect. There is continually a need to put in writing outline methods to help everyone make choices for the diverse problems our society faces on the day-by-day problems and with all of the diverse needs of the choice-making system. Design wondering is an iterative and innovative technique to fix all of the troubles facing society. In addition, it is a human-concentrated studies procedure with an emphasis on collaboration, prototyping, and field studies.

Identify -Design Need or Innovation

“Inspiration” plays an important role in building and sustaining a business. Inspiration is the hardest part of the design thinking model for creativity (Fleischmann *et al.*, 2020). Handy Furniture Zone is a Japan-based hypothetical home furniture company and is very excited to stay at home. Their vision is to improve the daily lives of the many people they use as inspiration. The first challenge they face early in the inspiration phase is identifying the problem they want to solve (Callahan, 2018). As a result, Handy Furniture Zone went to different homes and found problems that people faced, such as lack of space, lots of space, poor interior and exterior, and home layout. I was immediately drawn to this topic and happily started my research with a creative interest. I learned that design thinking is a combination of feasibility and ease of use. In addition, I learned that design is not only a way to make things beautiful and creative but also a way to solve complex problems used in various industries. “Design thinking is a human-centred innovation approach that relies on the designer’s toolbox to integrate human needs, technological capabilities, and business success requirements” (Stickdorn et al., 2018).

To solve this problem, the company investigated the underlying problem and found new methods. Then, it tested the new material. Handy Furniture Zone plans to actively influence people to construct relationships with their clients and persuade them to alter their lifestyles and save money together. Handy Furniture Zone thinks that once a company becomes sustainable, it will perform well in the most sensitive markets because nowadays, people prefer a more eco-friendly life at home without hoarding products. To seize this opportunity and make it sustainable, Handy Furniture Zone is

constantly improving its production and distribution with the aim of achieving high quality and low prices. The process is in bulk, and we are always looking for better transportation and logistics. They use as many flat boxes as possible with as few containers as possible, saving space and using less fuel to transport from factory to shop. The company uses resources wisely and produces recyclable products.

Empathize

The first step in the design thinking process is to understand the problem the company is trying to solve. It entails consulting with specialists to analyze the area of interest through commentary, interplay, and empathy, keeping their reviews and motivations, and immersing oneself in their physical surroundings and their harm (Elayyan, 2021). It involves a deeper and greater personal know-how of the problem they are experiencing. Empathy is as essential to human-focused design strategies as design wondering, and empathy lets designers go away behind their personal assumptions about the arena to take advantage of the perception of customers and their demands. There are several potential changes that can occur to change Handy Furniture Zone‘s approach to solving problems and opportunities, such as changes in the company’s external environment. When I was pursuing a solo career in Japan, I faced many difficult situations in my life that gave me the power to handle difficult situations and increased my EQ and intelligence. As the oldest child in the house, I can continuously control my feelings and use positive energy to enjoy myself with friends and family. Besides, I’ve always been a team player. As the captain of the college basketball team, I sometimes had to manage my job, college, and athletic team. The motivation of my teammates and colleagues naturally comes to me. Handy Furniture Zone offers its clients reusable and customizable products across the globe. The largest change that can occur is that the market forces competitors into the domestic market in search of cheaper products. In this situation, Handy Furniture Zone needs to find a way to maintain its brand identity by developing strategies to enhance its unique quality and value. Another problem is that customer needs change. For example, European homes are much smaller than US homes, but if they find that Japanese homes are smaller than usual in the near future, Handy Furniture Zone needs to redesign its products accordingly. In this way, it will sell its products to Japan and upgrade its products specifically to the US market.

Define

The definition phase gathers the statistics created and accrued at some point in the empathy section. It analyzes and integrates their observations to discover the key troubles the company and their group have identified to this point (Stackowiak and Kelly, 2020). Why are compliance and emotional intelligence my best skills? The global pandemic of Covid-19 has changed the dynamics of the whole business. Surprisingly, I was not very creative until I started graphic design and used it in my business’s digital marketing. In this way, I revealed the skill of creativity that I had hoarded over the years. That is the reason that creativity is one of my best skills. I am an expert in all professions and

not a master because when I have a lot of work to do, I cannot concentrate on one thing and inadvertently have to keep an eye on it. Therefore, cognitive flexibility is required to handle multiple tasks at the same time and shift gears as needed. In addition, I want to develop my critical thinking skills and complex problem-solving. These skills also influence your judgment and decision-making. I think this is what I'm missing, and I should start. The equipment that Handy Furniture Zone can use in the course of the inspirational section is visualization, mental mapping, and speedy development of concepts and co-advent with clients. For example, with the assistance of visualization, Handy Furniture Zone can think outside the box and believe in the capability issues that the commercial enterprise might face and the answers to those issues within the market. This process is non-verbal and involves the use of images. As they say, visualization is the first step in any project. "That picture deserves a thousand words." Images can display complex information on minimal pages. Visualization is mainly used to show certain ideas, but when words are used, people are more likely to form their own image because words have different meanings.

Ideate

In the third stage of the design thinking process, the designer is equipped to begin generating ideas. They understand users and their needs inside the empathy segment, examine and summarize consumer observations within the definition phase, and sooner or later reach a human-focused trouble system (Kumar, Zindani, and Davim, 2019). This solid enjoyment allows them and their team to start thinking outside the field and search for opportunities to look at the hassle and find new answers to the trouble description.

With the help of a smart card, Handy Furniture Zone can clearly see its goals, processes, goals, tasks, and relationships. In this way, Handy Furniture Zone can process information systematically and use it to generate great new ideas for future changes in terms of competition from other businesses and changing customer demands. Rapid Concept Development is a tool used to understand and develop standards developed to develop new business opportunities. The simple solution to this problem is not innovation but bringing something completely new to the market. Handy Furniture Zone needs to do this to solve problems that may arise from changing consumer demands. Taking advantage of co-creation with clients would be a great idea for Handy Furniture Zone as it allows new clients to become part of the new concept of the business. This technique is used early in the procedure to minimize costs and bottlenecks in the future. It engages individuals who are interested in the business, willing to propose solutions, work, and have a diverse customer base.

Prototype

The development squad creates a series of quick, low-value variations of the product or a specific function contained inside the product so that they can look at solutions to troubles that passed off inside the preceding step (Pressman, 2018). Prototypes can be shared and tested with a small

number of humans in the group, in different departments, or outside the development crew. This is an experimental stage, and the aim is to locate the great answer for each hassle diagnosed within the first three degrees. The solutions are prototyped and investigated and followed, advanced, revised, or rejected separately, depending on the person. By the end of this segment, the development team will have better information on the specific limitations of the product and the issues handy, as well as a more informed view of the way customers simply behave, suppose, and feel when interacting with the very last product (Dam and Siang, 2018). Handy Furniture Zone can use several specific creative resources. The idea of an information base refers to creativity based on current products and industry expertise. In this situation, if Handy Furniture Zone is planning to expand its business by promoting its merchandise, it needs to recognize the data of the enterprise they are in, the marketplace it is concentrated on, and the history of their products. The requirement for this process is related to the advertising of present products, consisting of imparting sugar-loose, wheat-free, and nut-unfastened merchandise to customers who cannot receive traditional merchandise for fitness motives. Perceptual changes check how someone perceives something unique, which includes a glass half full or half empty. Aerobics is a type of workout; however, if they name it “aerobic,” I suppose individuals can do things in another way. However, the outcomes are similar to exercise.

Test

The designer or tester thoroughly checks the whole product and the use of the best solution identified throughout the prototyping section. This is the final step in a 5-step model, but an iterative procedure often makes use of the results of the checking out section to redefine one or more troubles and tell users of their know-how, phrases of use, and thoughts, conduct, feelings, empathy (Wolniak, 2017). At this level, modifications and enhancements had been made to do away with the solution to the problem and to take advantage of as much know-how as feasible about the product and its users. Encouraging creativity is critical to the success of their business. In this case, it is very important that referrals promote creativity, and this goal is achieved in several ways. Complexity is how people are required to work against what they are used to just to test their creativity. A group of people is formed by differences in skills, interests, or problems. It allows them to think outside their comfort zone from the other person’s point of view (Stickdorn *et al.*, 2018). People from different cultures are believed to understand their concepts in different ways. Since everyone has their own ideas for the same phenomenon, sharing different types of experiences between teams increases the number of projects, goals, awareness, and solutions that lead to innovation and creativity.

Iterate

The iterative design thought process is non-linear and flexible, and its main driving force is understanding the user experience, redefining the problems it faces and creating innovative prototyping and test solutions (Abramek and Soltysik-Piorunkiewicz, 2021). This type of design thought process allows innovators to solve complex, unknown, or misunderstood problems by

redefining and centring the problem on people. This is achieved by understanding user factors and user problems and essentially exploring the possibilities of building and prototyping. Solutions and their essence enable and implement proposed innovations by incorporating the human factor in solutions that can design and maintain consumer communications (Haley, Harris, and Spencer, 2021). The researcher can also mention a simple linear design questioning technique that truly directs one step to the following, together with logical conclusions from the person checking out. However, in truth, the method is extra bendy and non-linear. For instance, specific corporations on a layout team may perform numerous steps right away, or a clothier may additionally accumulate statistics and prototypes at some point of a mission to convey thoughts to fruition and visualize answers to issues. In addition, the effects of the checking out section can reveal know-how about users (Abramek and Soltysik-Piorunkiewicz, 2021).

This can cause every other brainstorming session (ideas) or the improvement of a brand new prototype. This week, I learned a thing or two about creativity, which I'm very close to. In most cases, I learned that creativity is not a skill you are born with, but you have to learn it over a period of time, which is called creative intelligence. This line resonates with me because when I was a kid, I wasn't good at creativity or art, even when I started developing graphics. As I practised and honed my skills, I began to realize that I always wanted them. This week's activity really improved the only skill I was missing: cognitive flexibility. Cognitive flexibility means one's perception of alternative communication options, urges to familiarise the circumstances, and self-efficacy to be flexible (Elayyan, 2021). I like to think outside the box; I never imagined. I realized how many little things around me I could imagine what I liked. At the same time, many things really help me to think and be creative, and I know how important these skills are in today's world and in companies.

Handy Furniture Zone has used incremental innovation to fuel the creativity of this organization. Suppose the existing product has been expanded and improved to meet the client's deepest needs. For example, we make custom furniture that is easy to assemble, recyclable, and affordable for low-income households. It also saves space in small homes by rearranging innovative products, such as making furniture that meets the needs of two or three products at once and making study tables that will later become ironing boards or display cases. This allows them to create an entirely new market for their product, provides a potential basis for competition, and gives the product its own personality. It has survival risks and takes time, but if it works, it holds the gold. After all, taking risks is the first step to the success of any business.

References

Abramek, E. and Soltysik-Piorunkiewicz, A. (2021) 'Using the design thinking approach in the project decisions making', *Journal of Decision Systems*, pp. 1–15.

Callahan, E. (2018) 'Cross-cultural empathy: learning about diverse users in design thinking process', in *International Conference on Human-Computer Interaction*. Springer, pp. 236–240.

Dam, R. and Siang, T. (2018) ‘Design thinking: Get started with prototyping’, *Interaction Design Foundation* [Preprint].

Elayyan, M. (2021) ‘Design Thinking’, *The International Journal of Information, Diversity, & Inclusion (IJIDI)*, 5(2), pp. 142–145.

Fleischmann, A. *et al.* (2020) *Contextual process digitalization: changing perspectives–design thinking–value-led design*. Springer Nature.

Haley, K.J., Harris, R.P. and Spencer, L.R. (2021) ‘Prototyping and Student Engagement: A Case Study in Design Thinking’, in *Applying Design Thinking to the Measurement of Experiential Learning*. IGI Global, pp. 234–243.

Kumar, K., Zindani, D. and Davim, J.P. (2019) *Design thinking to digital thinking*. Springer Nature.

Pressman, A. (2018) *Design thinking: a guide to creative problem solving for everyone*. Routledge.

Stackowiak, R. and Kelly, T. (2020) *Design Thinking in Software and AI Projects: Proving Ideas Through Rapid Prototyping*. Springer.

Stickdorn, M. *et al.* (2018) *This is service design doing: applying service design thinking in the real world*. O’Reilly Media, Inc.

Wolniak, R. (2017) ‘The Design Thinking method and its stages’, *Systemy Wspomagania w Inżynierii Produkcji*, 6.

Appendix

Appendix A: Questionnaire

A questionnaire survey is conducted in order to evaluate the service innovation of the Handy Furniture Zone. These questionnaires require 3 minutes to complete.

Answer the following questions to evaluate the innovations at Handy Furniture Zone. It usually takes around three minutes to complete this survey. Please note that your personal details are anonymous.

1. What is your sex?

    1. Female
    2. Male

2. Please select your age bracket.

    1. 15 to 20

2. 21 to 29
3. 30 to 39
4. 40 to 49
5. 50 to 59
6. 60 to 69
7. 70 and above

3. How often do you buy furniture from Handy Furniture Zone?

1. Once in a quarter
2. Once in Six Months
3. Once in Twelve Months
4. Other

4. Which of the following is your favourite in the Handy Furniture Zone?

1. Excellent cost performance
2. Design (Product display method)
3. Various products
4. Customer support
5. Product Quality
6. Easy to assemble
7. Others (special)

5. Please rate the service at Handy Furniture Zone from 1 to 5 based on all customer experiences at Handy Furniture Zone (at least one satisfied, five very satisfied)

1. Very satisfied
2. Satisfied
3. Neutral
4. Not satisfied
5. Not very satisfied

6. If you had an unpleasant experience in the Handy Furniture Zone, would you choose another furniture store next time instead of the Handy Furniture Zone?

1. Yes
2. No

7. What kind of services do you think should be improved in the Handy Furniture Zone? (Multiple answers can be selected)

1. Customer Service Centre
2. More personalized products

Copyright © 2026 Academic Master.

3. Shipping
4. Business environment
5. Installation (shopping bags, cards, product labels)
6. Others (special)

8. Will you pay 30% more for customized furniture from the Useful Furniture Zone?

1. Yes
2. No

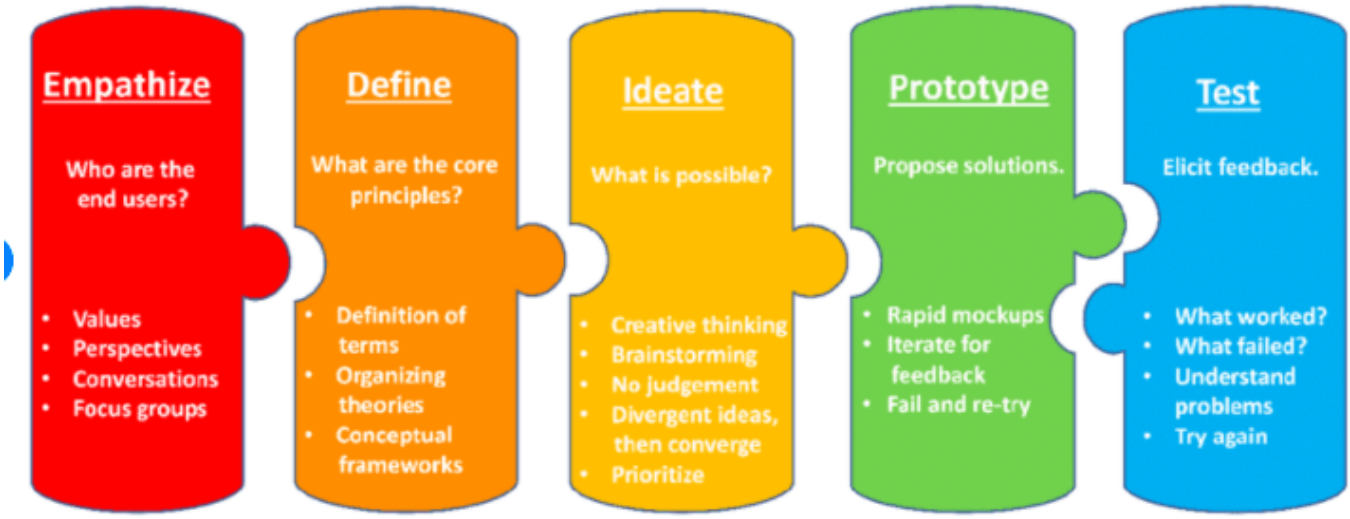
9. Handy Furniture Zone launched a new service called Tailored to Order. This means buyers can make their own furniture in a variety of colours, sizes, and fabrics. Choose the next view that you find most interesting. (Multiple answers)

1. Your signature on the product
2. Non-standard materials
3. Custom color
4. Custom size
5. I don’t like this idea
6. Others (special)

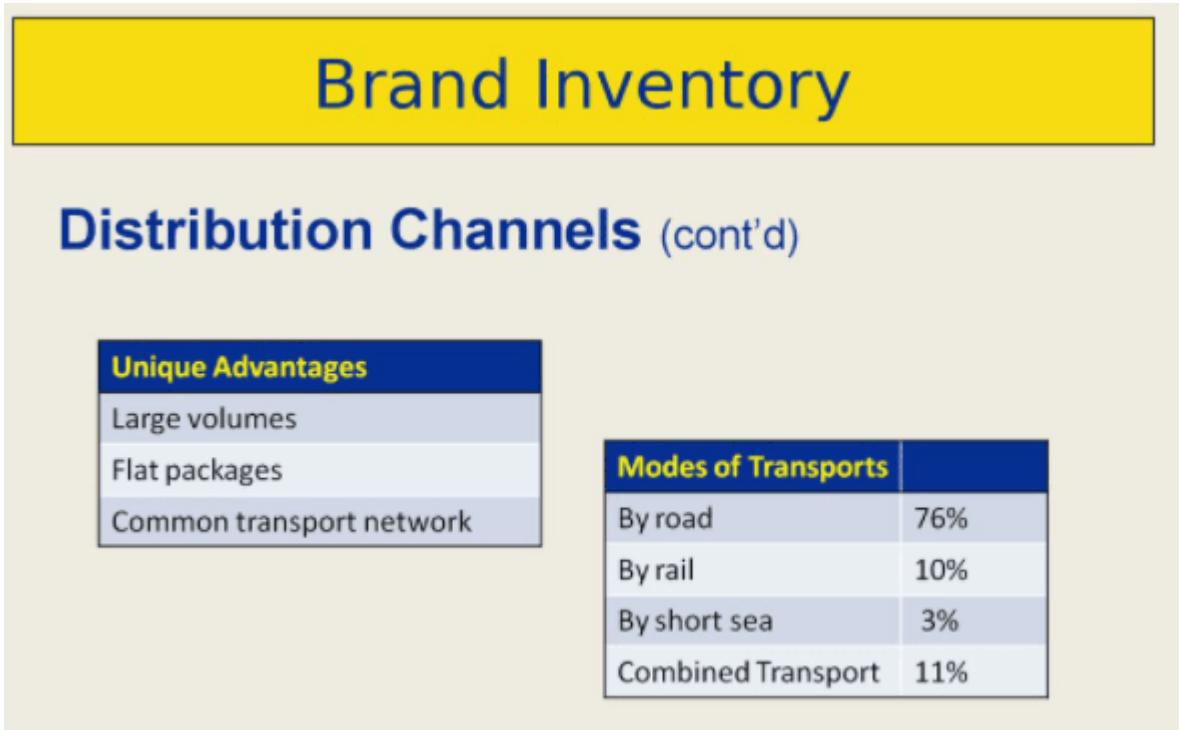
10. What do you worry most about customization?

1. Price
2. No return policy
3. Shipping
4. Quality
5. Others (special)

Appendix B: Stages of design thinking process



Appendix C: Brand Audit



Brand Exploratory
Sources of Brand Equity
Cult like following of customers
Common customer experience globally
Modern and stylish home furnishings
Self assembly = quality goods for lower cost
Shared global middle class buying habits
Middle class market growth opportunities*
Fun but frugal internal corporate culture