Business Model Canvas for the Proposed ShopnTry Mobile Application

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ABSTRACT

The paper focuses on the evaluation of Business Model of ShopnTry using the SWOT Analysis, TOWS Analysis, Business Model Canvas Perspective, 6 Thinking Hats Survey Questionnaire, and Design Thinking Approach. It encompasses the key elements of strategic planning to position ShopnTry into the competitive market as an innovative shopping application. This study presents the different approaches conducted for the evaluation of ShopnTry such as the comprehensive survey in relevance to the 6 thinking hats and SWOT/TOWS analysis discover its internal and external factors in developing business strategies. The strategies include optimized user interfaces, user-focused experience, freemium subscriptions, and continuous feedback. 89% of the respondents were inexperienced with the virtual try-on features included with the app, while 91% of the respondents believed that the virtual chatbot would be a breakthrough within the online market. Additionally, 57% of the participants were willing to pay extra for the mobile application's premium features.

CCS CONCEPTS

• **Information systems** → Information systems applications; Enterprise information systems; Enterprise applications.

KEYWORDS

ShopnTry, e-commerce, virtual try-on, augmented reality, SWOT analysis, business model canvas, 6 Thinking Hats

1 INTRODUCTION

The online shopping industry is growing as the technological advancements of the current era continuously progress. ShopnTry is a new upcoming augmented reality virtual try-on mobile application that seeks to offer an immersive shopping experience by utilizing the current peak of the technical field with cutting-edge features. The study aims to assess ShopnTry's business model through SWOT analysis while also analyzing key factors that will strengthen its progression in the business world. As well as utilizing a TOWS analysis from the factors of the SWOT analysis and by creating a business model canvas to have a better visual towards the building blocks of ShopnTry.

ShopnTry is a business product idea in the form of an online shopping platform that caters a unique approach to users experience with its innovative feature of AR technology. The need for most of the users to try the products they can see visually in a typical online shopping have been addressed with ShopnTry as it offers a virtual try-on of the items or products that the users want to check. This is with the help of augmented reality which enables the users to have an immersive and interactive shopping environment. The target consumers of this product are in individuals categorized as Millenials and Gen Z people because most of them are comfortable buying items online in comparison to some older individuals who doesn't know how to utilize technology.

The product addresses the sizing and fitting concerns of the users as well through a visual tool that helps them view the items on them that reduces the item returns and uncertainties. It changes the standard for shopping applications that exists in the current trend as the integration of technology keeps on evolving. ShopnTry offers not only a virtual try-on but a virtual stylist as well where it works like an artificial intelligence chatbot that personalizes clothing styles based on the user's preferences. It's a substantial value for the customers by offering a confidence-boosting shopping experience with its unique approach as an online selling platform.

The following competitive platforms of ShopnTry are Shopee, Zalando, Lily: Virtual Fitting Room, and Sephora AR. Shopee and Zalando focuses more on fashion and convenience, while Lily offers a virtual fitting at a physical store, and Sephora AR enhances the virtual makeup try-on. While ShopnTry is a blend of augmented reality try-on, virtual stylist, and social styling community feed sets it apart from the other platform, providing an immersive and engaging shopping experience.

Purpose of the Study

This study aims to evaluate ShopnTry's prototype using Six Thinking Hats Survey Questionnaire, Design Thinking Approach SWOT analysis and come up with business model canvas. The researchers examined ShopnTry's multiple unique features with the goal of identifying the strengths that differentiate ShopnTry from its competitors and uncovering any potential weaknesses, such as a limited virtual try-on experience, concerns regarding data privacy, and the necessity to enhance awareness among the target audience. Further, it considers nine key building blocks of the business: customer segments, value propositions, channels, customer relationships, revenue streams, key resources, key activities, key partnerships, and cost structure, as part of the business model canvas.

2 REVIEWS OF RELATED STUDIES

SWOT Analysis

According to Tim Berry (2023), Strengths, Weaknesses, Opportunities, Threats (SWOT) and Threats, Opportunities, Weaknesses, Strengths (TOWS) analyses are powerful tools that aid in the development of effective business strategies [1]. This evaluation approach offers a thorough understanding of the company's current standing, empowering informed decision-making and resource allocation. Based on the published article of Skye Schooley (2023), TOWS analysis builds upon SWOT insights, facilitating a proactive approach to strategic planning. By pairing internal strengths with external opportunities, businesses can develop strategies to capitalize on their advantages and seize growth opportunities [2]. Similarly, TOWS helps in addressing weaknesses to mitigate external threats, enhancing risk management. Overall, these analyses offer a systematic evaluation of the business environment, fostering innovation, and guiding the formulation of well-aligned strategies that leverage strengths, address weaknesses, exploit opportunities, and mitigate threats, leading to a competitive advantage and sustainable growth in the dynamic market landscape [3].

SWOT analysis is a useful tool that helps us analyze both our current and future strategies in a structured way. It allows us to pinpoint areas where we can improve and also helps us identify and make the most of opportunities that come our way. Benzaghta et al's study highlights various advantages of applying SWOT analysis in a business setting [4]. It detects common trends, emphasizing its ability to evaluate internal factors (strengths and weaknesses), as well as external factors (opportunities and threats). Additionally, the study of Xu (2013) identified the website of Dangdang.com wherein the opportunities and threats of their e-commerce website were found. It helped identify improvements towards marketing mix strategies from the website's product strategy to their promotional strategy.

However, according to Teoli et. al, SWOT has weaknesses as well [5]. Critics have expressed their issues about how "superficial and formulaic" it is, how it oversimplifies complicated situations, and how it relies on human perspectives, which can result in inaccuracies [6].

Six Thinking Hats

Individuals often claim that it is important to look at things from numerous perspectives while making a decision since it will allow people to overcome their biases, obtain a thorough understanding, and identify things we do not know. According to Erin Merill (2020), applying the 6 thinking hats approach can greatly aid in the development of business strategies by providing a systematic and comprehensive analysis of different perspectives [7]. The White Hat helps gather factual information and data, enabling an objective assessment of the current business situation and market trends. The Red Hat allows for emotional thinking, considering stakeholders' feelings and reactions, which can influence the strategy's acceptance and implementation. The Black Hat encourages critical thinking, identifying potential risks, weaknesses, and challenges that need to be addressed. The Yellow Hat promotes positive thinking, emphasizing opportunities and strengths that can be leveraged in the strategy. The Green Hat fosters creativity, brainstorming innovative ideas and approaches. Lastly, the Blue Hat serves as the facilitator, organizing and synthesizing the insights from each hat to develop a well-rounded and balanced strategy [8]. By using the 6 thinking hats approach, businesses can make informed decisions, address concerns, leverage strengths, and innovate to create effective and successful strategies [9].

The six thinking hats broaden individuals' perspective and way of thinking, allowing them to make more effective and informed decisions. M. F. Kaya conducted a study about the effectiveness of the six thinking hats in encouraging students to think from numerous perspectives in terms of the problem-solving process. The study showed that when applied in real-life problem-solving circumstances, the methodology used produced successful results [10]. The study of Intal (2021) discovered that there was an overdue need for improvement of their advertising through the help of the six thinking hats, which helped them focus on hiring for micro marketing.

By applying six thinking hats, teams can tackle problems or any decision-making process from different perspectives. With the use of six thinking hats, it will maximize team cooperation, eliminate conflicts within the team, generate unique ideas and will help the team make an effective and informed decisions [11].

3 METHODS

This section will discuss the methods used in data gathering using questionnaire with six thinking hats, SWOT analysis, and Business Model Canvas.

Data gathering

The group was assigned to conduct a survey questionnaire using the 6 thinking hats framework with 27 formulated statements and questions, which was to be answered by the target users. The group successfully collected responses from 56 participants and structured the survey into 7 sections: Participant's Demographic Profile, White Hat, Black Hat, Red Hat, Blue Hat, Yellow Hat, and Green Hat. The questions were designed to elicit responses on a scale from 1 to 5, indicating the level of agreement of the respondents (1 being the lowest and 5 being the highest). The Pricing and Feedback sections required specific answers, so they were not included in the agreement scale. Here are the survey results gathered from the respondents. The survey gathered demographic information from the respondents, including their names, ages, and gender. Notably, all participants were online shoppers who utilized various online

platforms for their shopping needs. Out of the 56 respondents, the majority (98.2%) were aged between 16 to 24 years old, with only one respondent (1.8%) falling into the age range of 25 to 35 years old. Regarding gender distribution, 55.4% identified as male, 41.1% as female, and 3.6% chose not to disclose their gender.

Design Thinking Approach

The design thinking approach is a human-centered and iterative problem-solving methodology that emphasizes empathy, creativity, and collaboration to tackle complex challenges. It is a structured and flexible process that encourages multidisciplinary teams to understand the needs of users or customers deeply, explore various possibilities, and develop innovative solutions [12].

Empathizing with users is crucial in understanding their perspectives and needs [13]. The White Hat results revealed that a significant number of respondents have not experienced AR-based virtual try-on features in online shopping platforms. This insight emphasizes the importance of designing a user-friendly and intuitive virtual try-on experience to cater to users who may not be familiar with such technology. Additionally, the Red Hat results indicated that most respondents believe virtual try-on can enhance their shopping experience. This positive emotional response suggests that users may be open to embracing new technology if it adds value and improves their overall journey.

Defining the challenges and concerns from the Black Hat results is essential for addressing potential roadblocks. Respondents expressed concerns about the accuracy of virtual try-on in representing how products will look on them. To build trust and confidence, it is crucial to address these worries by ensuring the virtual try-on feature provides accurate representations of products. Moreover, while some respondents are likely to subscribe to the premium feature, others expressed uncertainty. Defining the value proposition of the premium feature and clearly communicating its benefits to potential subscribers will be crucial in driving adoption and retention. The ideation phase, influenced by the Blue Hat results, should explore logical ways to optimize the user interface to ensure a seamless and user-friendly shopping experience. Building on positive feedback about personalized recommendations and social sharing features, ShopnTry can further enhance its value proposition by exploring creative ways to provide personalized recommendations based on user preferences and social interactions.

In the prototyping phase, the Yellow Hat results indicate that users believe virtual try-on can help them make informed purchasing decisions and visualize items in their shopping cart. Therefore, creating prototypes that offer a seamless virtual try-on experience, accurately representing products, is imperative in gaining user trust and satisfaction. Additionally, the Green Hat results suggest opportunities to prototype and test new features, such as implementing AR technology for virtual try-on and exploring face ID authentication as a login function, enhancing security and user convenience.

Integrating the Design Thinking approach with the data from the 6 thinking hats questionnaire, ShopnTry can create a transformative and customer-centric online shopping application. Empathizing with users, defining their challenges, ideating on innovative solutions, and prototyping those ideas will lead to an application that excels in providing a seamless and enjoyable virtual shopping experience. Throughout the process, user feedback and iterative improvement will be at the core, driving ShopnTry's potential success and fostering a loyal community of satisfied users.

SWOT / TOWS Analysis

A SWOT Analysis is used to evaluate the strengths, weaknesses, opportunities, and threats of a business. They are factors that affect the performance of a business in the future. The strengths and weaknesses are internal factors that the business has control over while on the other hand opportunities and threats are external factors that may impact on their success [14]. By using SWOT analysis, a business can improve areas holding the company back. While TOWS Analysis is created to provide strategies based on the SWOT analysis [8]. The relationships of the factors are used to improve the strengths of the company while reducing the weaknesses.

Business Model Canvas

A business model represents the business logic, describing its operational principles and value generation for stakeholders [15]. The Business Model Canvas (BMC) serves as a strategic business model tool used for visualizing, analyzing, and developing a business model or roadmap to achieve an organization's business goals.

The Business Model Canvas (BMC) has nine fundamental building blocks, which are Customer Segments, Value Propositions, Channels, Customer Relationships, Revenue Streams, Key Activities, Key Resources, Key Partnerships, and Cost Structure. With the building blocks working together, it will support the goals of the business. Aligning the key building blocks of BMC is important with the overall strategic goals of the business, these are channels, revenue streams, and cost structure.

4 RESULTS AND DISCUSSIONS

Results of the survey showed that the majority of respondents (50 out of 56) from the white hat section had not experienced a virtual try-on feature in a shopping application. However, 51 out of 56 participants agreed that a virtual stylist AI chatbot would be a game-changer for online shopping platforms. On the black hat section, few respondents were not willing to subscribe to the premium feature (virtual try-on), while 18 out of 56 answered as neutral or unsure. On the positive side, 32 respondents were likely to subscribe. Concerns about data privacy were raised by 24 participants, while 11 were unsure, and 21 had no worries. Most respondents agreed from the red hat section that the virtual try-on enhances the shopping experience and provides a user-friendly environment. Very few answered neutrally in comparison to those who agreed. The majority agreed from the blue hat that ShopnTry offers a seamless and user-friendly interface, prioritizes personalized recommendations and social sharing of purchases. Respondents were willing to pay various amounts for the premium feature, with 28.6% willing to pay 75 PHP - 100 PHP and 19.6% willing to pay 50 PHP - 75 PHP or 100 PHP - 125 PHP. The majority from the yellow hat section agreed that virtual try-on helps with good purchasing decisions and visualizing items in the shopping cart. Few respondents answered neutrally in this section. On the green hat section, most respondents agreed that there is room for improvements, such as implementing AR tech for face ID authentication and inspiring creativity with virtual try-on.

The respondents have provided valuable feedback and suggestions regarding our work. One recommendation is to implement a filter function that allows users to sort items by categories in the item section. Another suggestion is to introduce a star rating system for more reliable reviews of products. Additionally, there was a proposal to incorporate a PayLater function, similar to a credit feature, in the payment process. Overall, the existing feedback was positive, with users praising our product. We will carefully consider all the suggestions received from our respondents to enhance the ShopnTry application.

Based on the results of the ShopnTry survey using the 6 thinking hats and the Design Thinking approach, the following business strategies can be implemented: prioritize a user-focused experience, offer personalized recommendations, foster a social styling community through sharing features, ensure transparent data privacy measures, optimize the user interface for seamless navigation, devise a pricing strategy aligned with user preferences, maintain a continuous feedback loop for updates, explore AR technology and innovation, collaborate with influencers for creative ideas, and provide comprehensive customer support and education. By adopting these strategies, ShopnTry can establish itself as a customer-centric online shopping platform, driving user satisfaction, loyalty, and sustained growth in the competitive market.

SWOT / TOWS Analysis

Strengths:

Unique Features: Most respondents perceive the integration of virtual try-on using augmented reality technology and the presence of a virtual stylist AI chatbot as revolutionary.

User Perception: According to the survey, users believe ShopnTry offers a diverse range of products, as well as an immersive and creative shopping experience.

Personalization: The app is seen as an advantage since its virtual stylist bot generates recommendations based on the user's preferences.

Community-Friendly: Respondents see the Social Community Feed as a benefit because it allows them to connect, share opinions, and validate product quality.

Weaknesses:

Lack of AR Experience: Many respondents have yet to use a virtual try-on feature in a shopping app, implying a potential learning curve and the need for effective communication to acquaint users with this technology.

Data Privacy Concerns: While many respondents expressed no concerns about data privacy, many others do, emphasizing the importance of addressing these concerns and ensuring robust security measures.

Limited Awareness: If ShopnTry fails to effectively market and promote its unique features, there is a risk of low awareness among the target audience. This may result in lower user acquisition and slower growth compared to competitors with greater brand visibility.

Opportunities:

Subscription Potential: The survey's results indicate that users are willing to pay for the premium features of the app. User Engagement: Using the social community feed users are interested in sharing their purchases which could indicate an opportunity for strong user engagement.

Partnerships with influencers: Influencers may be interested in a paid partnership between the app since they could get paid to promote and use the app which is made easier by the social community feed.

Threats:

Market Competition: There are current shopping apps that are used worldwide that may overshadow ShopnTry from being widespread.

Data Security: Leaking of private information due to security breaches would ruin the app's reputation.

Technological Advancements: There are currently many technological advancements being created which may not be included in ShopnTry's features, which may prove revolutionary.

ShopnTry demonstrates multiple strengths that it can use to its advantage against the online shopping industry. It's very own virtual stylist bot is a feature unseen in the current era of e-commerce, However, as many strengths as it has, it also has its weaknesses that need to be resolved. Most of the respondents have stated that they have no experience when it comes to experiencing AR technology which requires tutorials to be set up for those who are inexperienced. Limited awareness of ShopnTry's unique features can also factor in its downfall. As such there are many opportunities like the potential revenue as many respondents are willing to pay for premium features of the app, and influencers are the way to go to help market immediately to a large audience. However, ShopnTry should still be wary of the threats it may face as greater technological advancements are created, there should be an observation of what new features may help the progress of ShopnTry.

TOWS Analysis

Strengths-Opportunities (SO) Strategies:

Leverage Unique Features: ShopnTry includes many features that many shopping apps don't have. This shall be taken advantage of to help promote the uniqueness of ShopnTry.

Foster User Engagement: High user engagement ensures that there is a lot of activity within ShopnTry. Techniques to help promote user engagement should be pursued to help lessen the chance of the app being irrelevant.

Establish Influencer Partnerships: Influencers with large followings can promote the app to their community which will significantly increase engagement and user count.

Strengths-Threats (ST) Strategies:

Enhance Competitive Advantage: Innovating further unique features to ensure that the app has a technological advantage is a priority to differentiate the app from other shopping apps.

Prioritize Data Security: Data security for the users must be a must to avoid losing the trust of the users. Once users feel distrust towards the app it would significantly lessen the total engagement in the app.

Weaknesses-Opportunities (WO) Strategies:

Educate Users on AR Technology: Tutorials toward AR Technology should be implemented in the app to prevent confusing users without experience of AR Technology.

Boost Marketing Efforts: Advertisements focused on the app's strengths must be done to reach a larger audience. Partnerships towards influencers is a great strategy to help promote the app.

Weaknesses-Threats (WT) Strategies:

Continuous Innovation and Adaptation: There are many technological advancements being created. Therefore, there are many innovations being produced that may outperform the unique features of ShopnTry. Future features must be observed to ensure the app stays up to date with the current technology.

The internal and external factors of ShopnTry should be utilized to create better opportunities and lessen the overall risk of threats. Continuous innovation is crucial to ensure that the app's features is in the forefront of the digital era. By implementing the strategies stated above, ShopnTry can increase its strength, lessen its weaknesses, open opportunities, and mitigate threats. This will push ShopnTry forward to a position wherein it will grow substantially. Business Model Canvas

In this section, researchers designed a Business Model Canvas (BMC) that outlines the business model of ShopnTry.

Value Proposition The value proposition solves the customer's problem and meets their needs. This is the unique offer that your business provides to its customers/clients. This ShopnTry offers shoppers an immersive and interactive shopping experience.

Here are the values provided by this ShopnTry AR virtual try-on mobile application business:

- Providing customers or shoppers with an immersive and interactive shopping experience through its integration of virtual try-on features using augmented reality (AR) technology.
- To be a solution for the sizing and fitting concerns of the customers.
- To provide a solution for customers that do not want to go out to buy products or clothing pieces.
- Allowing users to connect, share, and engage in product discussion with other users/shoppers through Social Community Feed.
- Providing a product or fashion styling experience through its virtual stylist AI chatbot.
- To be a solution for users' product or fashion inquiries, this will help them discover new products and fashion styles and saves time in finding the right product they are looking for.
- To reduce the risk of disappointment or returns from the customers.

Customer Segments

The customer segments are the group of people that ShopnTry wants to serve. Below are the 2 main customer segments of Shopn-Try:

- Fashion Enthusiasts
- Online Shoppers

ShopnTry caters to two main customer segments, such as fashion enthusiasts and online shoppers, in order to align and meet the customer/user's needs and preferences within the business. This group of people is the most active ones when it comes to online shopping.

Channel

The main channel of ShopnTry is a mobile application that facilitates user interaction.

Customer Relationships

ShopnTry will build a strong customer relationship by providing users/shoppers with an immersive and personalized shopping experience and providing user interaction through a social community feed. Moreover, resolving issues and problems through customer support features.

Revenue Streams

The revenue streams are the sources from which a business earns money by selling its products and services to the customers.

This business will be getting revenue from the following:

Virtual Try-On Premium Feature Subscription

ShopnTry offers a premium feature that will generate revenue for the business. This allows users to access the virtual try-on feature of the mobile application by purchasing the premium feature for PHP 75.00.

ShopnTry Commissions from Seller Product Sales

Another way to generate revenue is through a commission-based model, wherein ShopnTry will earn a percentage or commission from every product purchase made through the platform.

Key Activities

ShopnTry engages in a variety of key activities to ensure the success and functionality of its mobile application. The primary focus is on Mobile Development and Maintenance, involving continuous improvements, updates, and bug fixes to enhance the overall shopping experience. Another crucial aspect is Product Sourcing and Curation, where a diverse range of products is carefully selected and curated across different categories to stay abreast of trends. The implementation and constant enhancement of the AR-based Virtual Try-On feature represent a pivotal task, ensuring the seamless operation of this premium feature. Marketing and Promotional Activities are conducted to attract potential users and build brand awareness. Building Strategic Partnerships with Influencers and Brands is essential to enhance visibility and credibility. Providing Customer Support is paramount for resolving user issues and maintaining high satisfaction levels. Lastly, Data Management and Security measures are implemented to protect user data and ensure privacy. Overall, these activities collectively contribute to ShopnTry's goal of providing a user-friendly, secure, and innovative mobile shopping experience.

Key Resources

The key resources are assets that are essential for the ShopnTry's business model to work, these are technology infrastructure, AR technology, a comprehensive product catalog, and partnerships with retailers, brands, and influencers.

Key Partners

To support this business, ShopnTry needs its key partners or networks, which are influencers, brands, retailers, augmented reality (AR) technology providers, delivery and logistics companies, and payment gateway providers, to make the business model work.

Cost Structure

The cost structure of ShopnTry describes the cost that arises through its operations such as mobile application development and app maintenance, AR Technology, marketing and advertising expenses, partnerships and collaborations costs, and data security measures.

5 CONCLUSION

This paper has evaluated the SWOT analysis, TOWS analysis and business model canvas of ShopnTry, a virtual try-on mobile application that utilizes augmented reality (AR) to enhance the online shopping experience. Both SWOT and TOWS analysis helped ShopnTry gain a better understanding on its path towards maximizing strengths, minimizing weaknesses, taking opportunities, and reducing the risk of threats, which lead ShopnTry in a better path and position towards its progression in the e-commerce market.

The 6 thinking hats questionnaire survey has led to the formulation of key business strategies for ShopnTry. Focusing on a user-centric experience, offering personalized recommendations, fostering a social styling community, and prioritizing data privacy, the application aims to create a seamless and engaging virtual shopping environment. With a well-optimized user interface, flexible pricing options, and continuous feedback loop. Exploring AR technology and collaborating with influencers, the platform can inspire creativity and attract a diverse user base. Furthermore, with comprehensive customer support, ShopnTry seeks to build trust and loyalty among its customers. These strategies, driven by user insights and the Design Thinking approach, position ShopnTry for potential success in the competitive e-commerce landscape and pave the way for continued growth and customer-centric excellence.

This article has offered valuable insights into the business model of ShopnTry and emphasized the importance of aligning key elements, addressing weaknesses, capitalizing on opportunities, and mitigating threats. ShopnTry can position itself as a leading virtual try-on mobile application and enhance its competitiveness in the market by evaluating its business model.

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