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A Conceptual RevieCart Business Model: A Digital Marketplace for Near-Expiry and Defective Goods towards Zero-Waste

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Abstract: **The rising cost of living and increasing levels of food waste present significant economic and environmental challenges in Malaysia. Retailers frequently incur losses due to unsold near-expiry and slightly defective products, while consumers, particularly students and low to middle-income groups, struggle to afford daily necessities. This paper proposes RevieCart, a hyperlocal digital marketplace that connects retailers with nearby price-sensitive consumers by offering discounted near-expiry and defective goods at up to 50% or more below original prices. The platform integrates location-based services to display real-time deals within a defined radius and supports both self-pickup and delivery through third-party logistics providers. The objectives of this paper are to reduce retail-level waste, enhance affordability, and promote sustainable consumption practices. A mixed-method approach is employed, including literature analysis and user perception insights, to validate the feasibility of the proposed solution. The expected outcome is a scalable and sustainable platform that benefits both consumers and merchants while aligning with broader environmental goals. RevieCart demonstrates the potential of leveraging hyperlocal commerce to transform excess inventory into economic value and social impact. Future works will extend this concept into an executable operational framework with pilot testing across residential and campus zones.**

Keywords: **Hyperlocal marketplace, food waste reduction, price-sensitive consumers, digital platform, sustainability, near-expiry products, business model.**

I. INTRODUCTION

Due to rising living costs and increasing levels of food waste, consumers and retailers in Malaysia face significant economic and environmental challenges. Rising living costs and food waste present significant challenges in Malaysia. Food loss and waste is highlighted as a global sustainability issue [1], while the unsold products contribute to wastage in local retail sectors [2]. These pressures hit price-sensitive groups like students and low- to middle-income households, who struggle to afford things, while retailers lose money when they can't sell their goods. There is a need for this problem to be filled since people are unable to find products that are within their budget, and stores are unable to recover from their losses due to surplus or defective products. A study showed that knowing more about consumer acceptance is important in creating a sustainable innovation in retail stores, particularly in solving food wastage issues [3].

The challenges faced by consumers and retailers manifest as extreme pain. Consumers experience pain in finding discounted products, spending too much time searching for discounted products, and experiencing uncertainty in product quality. On the other hand, retailers experience financial losses due to unsold products, financial losses in storage or disposal of products, and using inefficient methods in clearing products. These pains are considered significant as they impact daily living for consumers and business sustainability for retailers. In particular, not being able to obtain discounted products impacts consumer welfare, and disposing of unsold products results in economic losses and waste. These challenges are

also associated with other sustainability issues, such as Malaysia adopting circular economy principles in line with the 13th Malaysia Plan 2026-2030. In particular, reducing food and product waste will contribute to the United Nations Sustainable Development Goals, which include SDG 12 Responsible Consumption and Production, and SDG 8 Decent Work and Economic Growth [4]. By providing solutions to consumer and retailer challenges, economic, social, and environmental benefits can be achieved.

However, existing solutions in the market do not fully alleviate these extreme pains. Discounted online marketplaces such as Shopee and Lazada give price-conscious consumers access to deals but do not specialize in near-expiry or defective products and lack real-time inventory information at the hyperlocal level. Food redistribution marketplaces such as Soup Kitchen and Food Bank Malaysia help alleviate the problem of food wastage via donations but do not provide any direct economic benefit for retailers or affordable options for consumers. Thus, there is a need for a new solution that is innovative in its approach to alleviate the jobs-to-do, extreme pains, and essential gains of both consumers and retailers.

RevieCart is proposed as a new solution to alleviate the jobs-to-do, extreme pains, and essential gains of both consumers and retailers. It is a hyperlocal digital marketplace that aims to connect price-conscious consumers with retailers who provide discounted near-expiry or defective products at the hyperlocal level. RevieCart provides real-time location-based deals for consumers who can opt for self-pickup or delivery via third-party logistics providers. Trust is also integrated into the platform for quality assurance.

II. PROBLEM STATEMENT/OBJECTIVES

Consumers and retailers in Malaysia face pressing challenges linked to rising living costs and increasing levels of product and food waste. Price-sensitive consumers, such as students, low-income households, and budget-conscious families, struggle to access affordable essential goods. Their jobs-to-do include finding discounted products quickly and reliably, yet they experience extreme pains such as spending excessive time searching for deals, uncertainty about product quality, and limited trust in sellers.

On the other hand, retailers and merchants face their own set of challenges. Their jobs-to-do include clearing unsold, near-expiry, or defective inventory, but they suffer extreme pains such as financial losses from unsold products, high storage disposal costs, and reliance on inefficient clearance methods. These issues not only affect daily consumer welfare and business sustainability but also contribute to broader environmental concerns, as unsold products add to waste streams [5].

The main objective of this paper is:

a. To develop a conceptual business model that connects price-conscious consumers with retailers through a hyperlocal digital marketplace.

b. To provide affordable access to essential goods at discounts of 50-80 percent, while ensuring trust and transparency through features such as expiry date displays, product condition descriptions, verified retailers, and refund policies.

c. To enable retailers to recover financial losses, reduce disposal costs, and improve inventory turnover by offering a structured sales channel for near-expiry and defective products.

d. To align the solution with sustainability goals by reducing product waste and supporting responsible consumption, thereby contributing to SDG 12 (Responsible Consumption and Production) and SDG 8 (Decent Work and Economic Growth).

e. To demonstrate Blue Ocean potential by differentiating RevieCart from existing platforms such as Shopee, Lazada, and food redistribution initiatives, which do not fully address the jobs-to-do, pains, and gains of both consumers and retailers.

III. METHODOLOGY

This study adopts a Design Thinking (DT) approach to ensure that the business model is human-centered, iterative, and validated against real-world needs. The process begins with a literature review (LR) to understand the global and local context of food and product waste, rising living costs, and consumer acceptance of discounted goods. Benchmarking is conducted against similar companies and platforms using the Business Model Canvas (BMC) framework, highlighting gaps in existing solutions such as Shopee, Lazada, and food redistribution initiatives. To capture the lived experiences of customer segments, surveys and interviews are conducted with both consumers and retailers, focusing on their jobs-to-do, extreme pains, and essential gains.

Based on these insights, an initial business model is developed using business modeling tools such as the Environmental Map (EM), Business Model Canvas (BMC), and Value Proposition Canvas (VPC). A prototype of the digital platform and mobile application is conceptualized to demonstrate how RevieCart can deliver value to its customer segments. Validation is then carried out through further surveys and interviews, testing the relevance and trustworthiness of the proposed solution. Key findings are analyzed and discussed, leading to refinements in the business model to address concerns such as product safety, trust, and usability. Finally, a validated conceptual business model is established, supported by the digital platform and app design. A Strategy Canvas is developed to compare RevieCart's relevancy and sustainability against other companies' solutions, from the perspectives of both consumers and retailers, thereby demonstrating its Blue Ocean potential in the Malaysian market.

IV. LITERATURE REVIEW

A. Megatrends and National Policies (4IR, Sustainability, Digital Economy)

The Fourth Industrial Revolution (4IR) has significantly transformed the global economic landscape, particularly through the integration of digital platforms, data analytics, and artificial intelligence into everyday business operations. In Malaysia, national initiatives such as the MyDIGITAL Malaysia Digital Economy Blueprint and the Twelfth Malaysia Plan (12MP) emphasise the importance of digital transformation, inclusive economic growth, and sustainable development. These policies highlight the need for businesses to adopt digital solutions that not only improve efficiency but also address societal challenges such as income inequality and environmental degradation. Looking forward, the new Thirteenth Malaysia Plan (13MP) is expected to further strengthen these initiatives, particularly in advancing the digital economy and sustainability agenda [6].

One of the key megatrends identified is the shift towards sustainable consumption and production, aligned with global frameworks such as the United Nations Sustainable Development Goals (SDGs), particularly Goal 12: Responsible Consumption and Production. The urgency of this goal is underscored by the UNEP Food Waste Index Report 2024, which reveals that households, retailers, and the food service industry continue to waste over 1 billion meals daily globally [7]. Food and product waste have become major concerns, with studies indicating that a significant portion of retail inventory is discarded due to near expiration or minor defects, despite still being usable. Additionally, the increasing cost of living has intensified the demand for affordable alternatives, especially among low-income (B40) and middle-income (M40) income groups [7]. These trends highlight the growing relevance of digital platforms that can simultaneously address affordability and sustainability.

B. Supply and Demand in Food and Retail Waste Ecosystem

The imbalance between supply and demand in the food and retail sectors contributes significantly to waste generation. Retailers often overstock products to avoid shortages, resulting in excess inventory that eventually becomes unsellable through traditional channels. This systemic oversupply is mirrored by a "prevalent pattern of disposable consumption" on the consumer side, where household waste patterns are driven by a lack of awareness and structured disposal habits [8]. Consumers increasingly seek affordable goods but lack access to structured platforms that offer discounted near-expiry or imperfect products.

Existing solutions, such as Food Aid Foundation Malaysia, provide a vital social safety net by redistributing surplus to underserved communities. While these initiatives serve as an important social function, they operate primarily on donation-based models rather than sustainable commercial frameworks [15]. Furthermore, the broader food supply chain in Malaysia faces significant challenges in optimizing these surplus flows, often failing to reconcile retail efficiency with environmental sustainability [9].

In the commercial digital space, platforms like GrabFood and Foodpanda have successfully addressed the "functional consumer requirement" of convenience and variety. While they offer high-speed delivery (pain relievers) and immense choice (gain creators), their business models are built for freshly prepared meals. This leaves a critical market gap: a digital ecosystem that specifically targets the redistribution of surplus and near-expiry retail goods, aligning commercial profitability with large-scale waste reduction.

Comparative international experiences further highlight the growing importance of technology-driven surplus redistribution ecosystems. In India, large-scale initiatives such as the Indian Food Sharing Alliance (IFSA) and digital redistribution platforms supported by the Food Safety and Standards Authority of India (FSSAI) demonstrate how community-driven

logistics, NGO partnerships, and real-time digital coordination can reduce food waste while addressing food insecurity. These systems integrate donors, volunteers, and beneficiaries through centralized platforms that enable efficient tracking, collection, and redistribution of near-expiry food products [10]. Research on emerging Indian platforms such as Share-Bite and ECOFEAST further emphasizes the role of AI-powered matching, geolocation, and route optimization in improving redistribution efficiency and reducing operational waste [11].

In contrast, South Korea represents a more technologically mature model, where food waste management is highly digitized and integrated into urban logistics systems. Studies on Seoul's food bank logistics ecosystem highlight the importance of inventory tracking, expiry-date monitoring, refrigerated storage, and data-driven logistics coordination to improve surplus food distribution efficiency [12]. South Korea's approach demonstrates how advanced retail integration and digital waste management infrastructures can support sustainable consumption practices while minimizing inefficiencies across the food supply chain. Together, the Indian and South Korean models illustrate two complementary approaches to surplus redistribution: India emphasizes scalable community-based rescue networks, whereas South Korea focuses on smart logistics and high-tech waste governance. These international examples reinforce the potential for a commercially sustainable digital marketplace that bridges affordability, retail efficiency, and environmental sustainability.

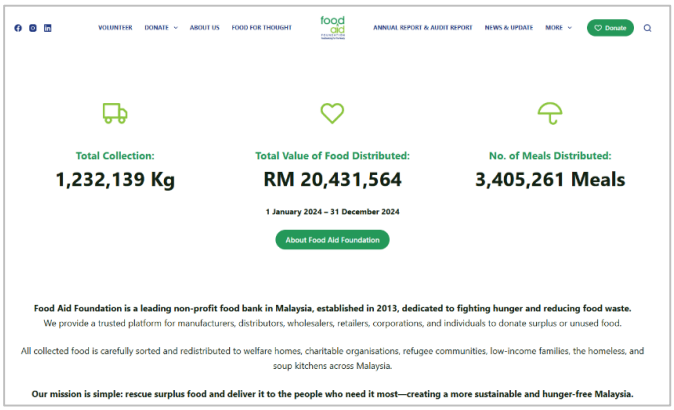

Fig. 1: Food Aid Foundation Malaysia Website

C. Socioeconomic Challenges: Cost of Living and B40 Consumer Behaviour

The rising cost of living in Malaysia has significantly impacted purchasing behaviour, particularly among B40 and lower M40 groups. According to the Department of Statistics Malaysia, inflationary pressures on essential goods have forced a recalibration of household budgets, making affordability the primary driver of consumption [13]. In this environment, brand loyalty is often sacrificed for immediate cost savings, as consumers become increasingly price-sensitive and actively seek discounts, promotions, and alternative digital purchasing channels.

At the same time, there is a growing awareness of sustainability among consumers, particularly younger demographics such as students. However, a gap exists between intention and action due to limited access to platforms that facilitate sustainable consumption. Consumers may be willing to purchase near-expiry or slightly defective goods at discounted prices, but concerns regarding quality, safety, and transparency remain major barriers.

Government initiatives aimed at reskilling and improving digital adoption further support the development of digital marketplaces. By enabling both consumers and small businesses to participate in the digital economy, such platforms can contribute to economic inclusivity while addressing pressing social issues.

D. Digital Platforms and Hyperlocal Marketplace Trends

Digital platforms play a crucial role in connecting supply and demand efficiently. The platform economy enables value creation by facilitating interactions between multiple user groups. Hyperlocal platforms, in particular, have gained popularity due to their ability to connect users within a specific geographic area, reducing delivery time and logistics costs.

Platforms such as Carousell demonstrate the effectiveness of localised transactions but primarily focus on second-hand goods. Similarly, ReMeal addresses food waste by offering surplus food at discounted prices, though its presence in Malaysia is limited. These examples highlight the potential of hyperlocal platforms while also emphasizing the need for a more localised and comprehensive solution.

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Research indicates that the success of these services in Southeast Asia depends heavily on the "last-mile" experience; specifically, proximity and perceived ease of use are the primary drivers of customer adoption in hyperlocal food ecosystems [14]. This highlights a clear market gap: the need for a comprehensive, localized solution that combines the trust of a neighborhood marketplace with the sustainability goals of a surplus redistribution network.

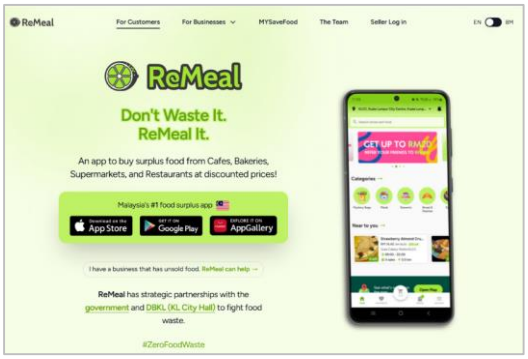

Fig. 2: ReMeal App

E. Benchmark of Similar Business Models

Benchmarking existing platforms through the Business Model Canvas (BMC) framework provides a systematic approach to evaluating how current solutions create, deliver, and capture value. Table 1 summarizes key BMC elements across competitors.

Table 1: Business Model Canvas (BMC) Comparison of Similar Platforms

BMC Element	GrabFood (Logistics-Centric)	ReMeal (Sustainability Niche)	Shopee/Lazada (E-Commerce)
Value Proposition	Convenience, speed, variety for fresh meals	Discounted surplus food for waste reduction	High-volume variety, affordability
Customer Segments	Urban consumers, F&B Vendors	Eco-conscious buyers	Mass market
Key Activities	Order processing, real-time logistics	Surplus inventory sales	High-volume fulfilment
Key Resources	Delivery fleet, app tech	F&B partnerships	Warehouses, logistics network
Revenue Streams	Delivery fees, commissions	Discounts on surplus	Sales commissions
Cost structure	Logistics heavy	Limited scale	Inventory/logistics
Channels	Mobile app	Mobile app	Mobile app/ website
Pain Relievers/ Gain Creators	Fast delivery / Choice	Waste guilt relief / Savings	Promotions / Variety

i. Logistics-Centric Models: GrabFood

GrabFood represents a mature business model within the on-demand delivery ecosystem. As per Table 1, GrabFood excels in its primary Value Proposition, which centers on convenience, speed, and variety, successfully fulfilling the "functional consumer requirement" of immediate meal access. The platform serves urban consumer segments and food vendors through high integrated mobile channels and a robust logistics fleet.

From an operational standpoint, GrabFood's Key Activities involve sophisticated order processing and real-time delivery coordination. However, a significant limitation is its lack of alignment with the circular economy. The model is optimized exclusively for freshly prepared inventory and fails to address retail-level surplus or sustainability, creating a distinct void in waste mitigation and specialized affordability.

ii. Niche Sustainability Models: ReMeal

In contrast, ReMeal's narrow scope (Table 1) adopts a sustainability-driven orientation. Its Value Proposition focuses on food waste reduction by facilitating the sale of unsold inventory at discounted rates, targeting environmentally conscious consumers. While ReMeal aligns closely with SDG 12 (Responsible Consumption and Production), it faces challenges

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regarding Key Resources and scalability. Its current operational scope is often restricted by geographic density and a narrow product focus. Limiting its inventory to food items and neglecting broader retail categories such as household or non-food surplus goods.

iii.E-Commerce Giants: Shopee and Lazada

While major e-commerce platforms like Shopee and Lazada offer immense variety and advanced logistics, their business models are architected for conventional high-volume retail transactions. They lack specialized Key Activities for managing near-expiry or "imperfect" inventory. Consequently, they do not offer a structured mechanism to reconcile surplus inventory within retail supply chains, nor do they focus on hyperlocal redistribution.

From this benchmarking, it is evident that existing platforms such as GrabFood demonstrate high proficiency in logistics and consumer convenience. However, their business models lack a dedicated focus on environmental sustainability or waste mitigation. In contrast, emerging solutions like ReMeal address the circular economy through food waste redistribution, yet they remain constrained by geographic scope and technical scalability. Furthermore, while e-commerce giants Shopee and Lazada prioritize affordability and market accessibility, they do not offer structured mechanisms to reconcile surplus inventory within retail supply chains.

Consequently, a critical market void exists; no singular platform currently integrates economic affordability, hyperlocal accessibility, and environmental sustainability into a cohesive ecosystem. This discrepancy presents a strategic opportunity for RevieCart to adopt a differentiated value proposition. By leveraging a hyperlocal digital infrastructure and diversifying its inventory to include both food and non-food surplus goods, the RevieCart model seeks to address the identified market void by applying a Blue Ocean strategy to uncontested retail segments. This model effectively transitions dormant excess inventory into tangible economic, social, and environmental capital, creating uncontested market space within the retail landscape.

V. INITIAL BUSINESS MODEL (BM) - USING BMC & VPC

The initial Business Model was developed through a collection of literature reviews and the company decided to make it a multi-sided business platform (see Fig. 3).

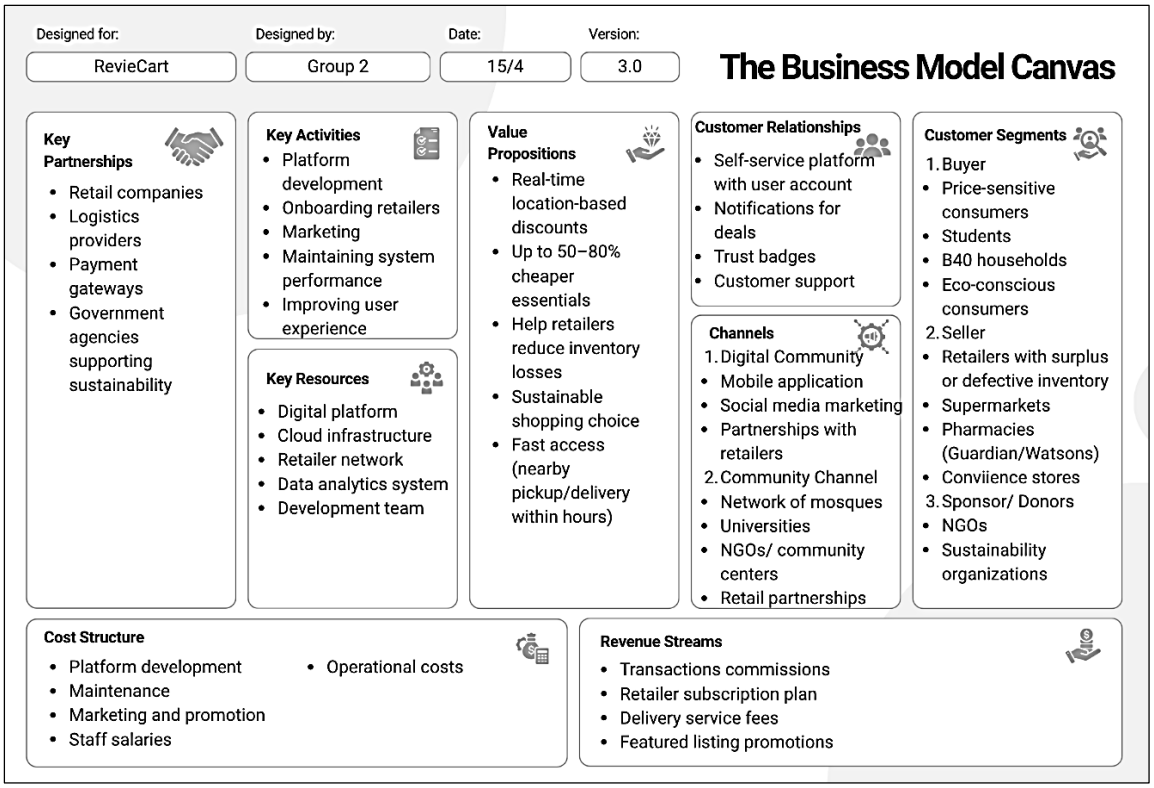

Fig. 3: Initial RevieCart Business Model using BMC framework

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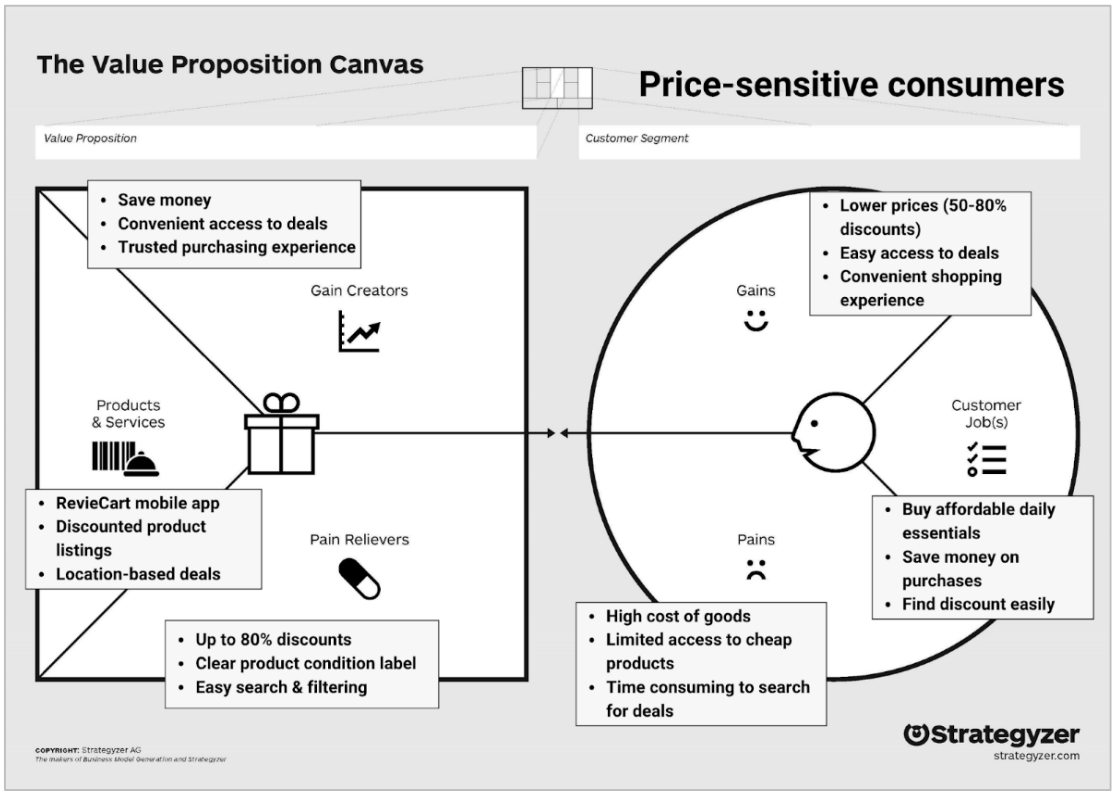

Fig. 4: VPC for Buyer/ Donor - Price-sensitive Consumers

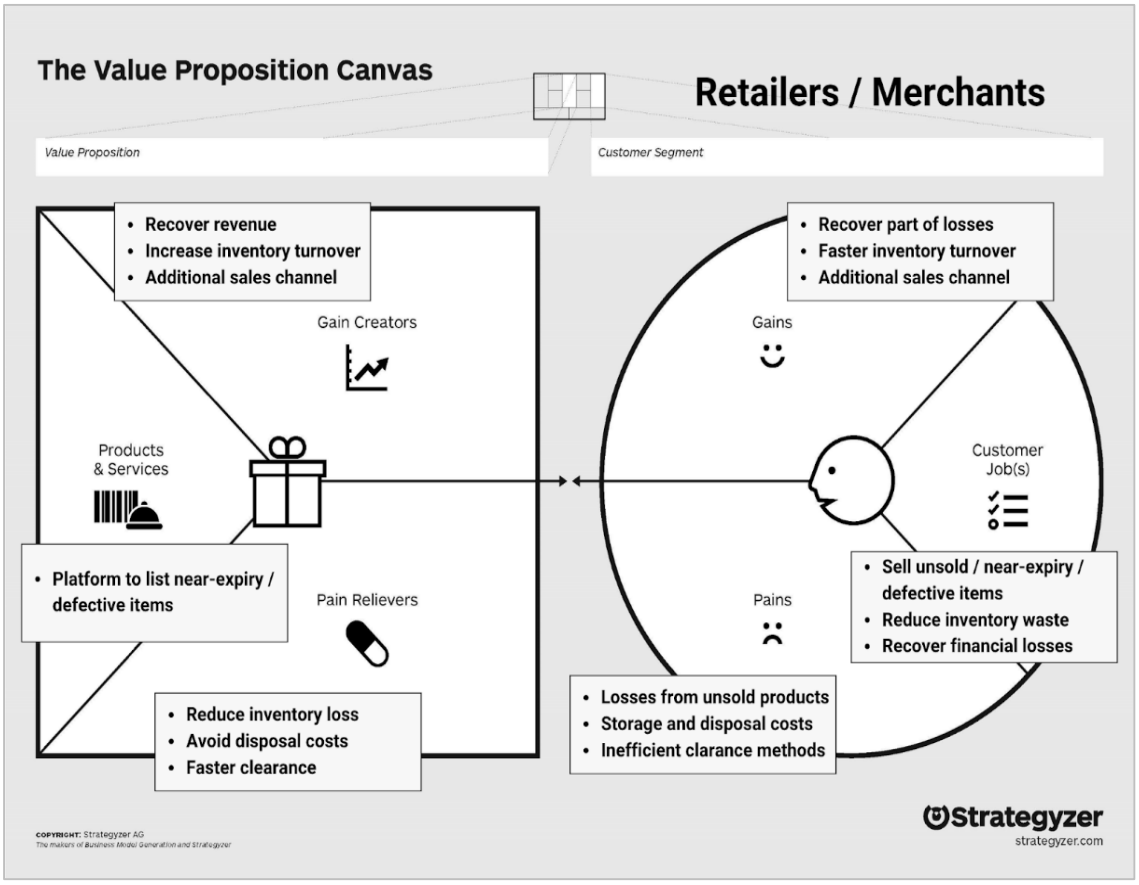

Fig. 5: VPC for Seller - Retailers / Merchants

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VI. VALIDATION OF INITIAL BM & KEY FINDINGS

Fig. 6: Results 1 from the RevieCart Validation Survey

Fig. 7: Results 2 from the RevieCart Validation Survey

RevieCart conducted a validation survey targeting price-sensitive consumers, particularly students and young adults, to evaluate the feasibility of its proposed business model. A total of 50 respondents participated, representing both student and working adult demographics. The sample was predominantly composed of individuals aged 18-24 (46%), while only 2% were aged 35 and above. In terms of occupation, 32% were students and 12% were employed, indicating appropriate representation of the intended target segment.

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Findings suggest a moderate to high level of awareness and prior engagement with near-expiry products. Specifically, 64% of respondents were aware that retailers discard near-expiry goods, and 68% reported having previously purchased such items. When presented with the value proposition, 60% indicated willingness to purchase near-expiry products if safety and price conditions were met, while 34% expressed reluctance. This reflects a generally positive but not universal acceptance, suggesting the presence of adoption barriers.

Key consumer concerns were primarily related to perceived risk. Safety and health issues were identified by 76% of respondents, followed by concerns over product quality (54%) and limited shelf life (40%). These findings highlight critical trust and risk-mitigation requirements for platform design. Pricing preferences were relatively distributed, with 32% favoring discounts of 30-50% and 26% preferring reductions above 50%, indicating that deeper discounts may be necessary to offset perceived risks.

In terms of platform viability, 60% of respondents expressed interest in a mobile application that aggregates discounted items in nearby locations. Travel willingness was mixed, with equal proportions (26%) indicating readiness to travel less than 1 km and more than 5 km, suggesting variability in convenience sensitivity. Trust-building mechanisms were identified as essential, particularly clear expiry date labeling (66%), detailed product condition descriptions (64%), and the availability of refund or return policies (52%).

From a supply-side perspective, 52% of respondents identified as retailers or merchants. Among these, 60% reported experiencing issues with unsold or near-expiry inventory, and 78% indicated willingness to sell such products at discounted prices. This demonstrates a strong alignment between supply availability and platform objectives.

Overall, the survey findings provide empirical support for the RevieCart business model, indicating alignment with key elements of the Value Proposition Canvas for both consumers and merchants. The results demonstrate clear demand potential, while also identifying critical factors, particularly trust, pricing strategy, and risk perception, that must be addressed to ensure successful implementation.

VII. VALIDATED BM – BMC FRAMEWORK

A. Validated BM

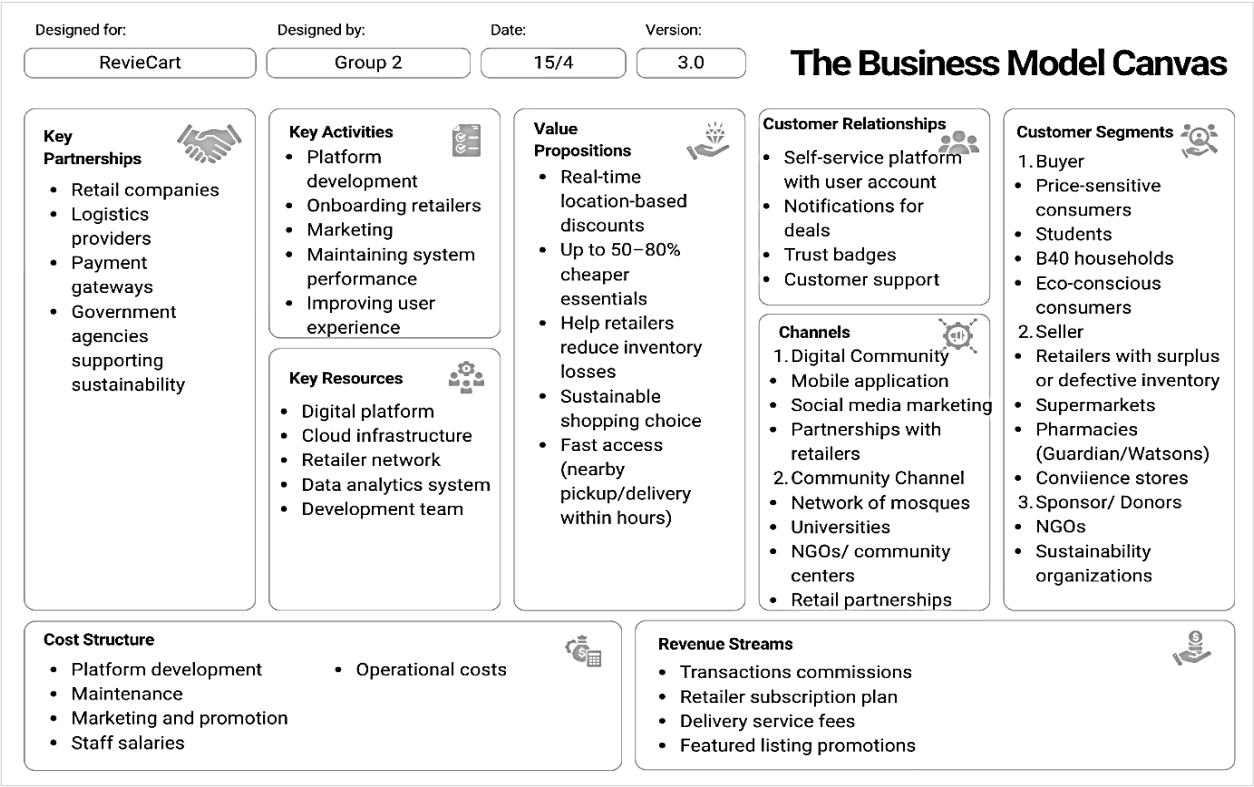

Fig. 8: Validated RevieCart Business Model using BMC framework

Based on the survey findings, it is evident that respondents are highly concerned about the rising cost of living and show a strong interest in purchasing discounted near-expiry products (60% indicated willingness to purchase). However, key concerns such as product safety, quality and trust were identified. Therefore, several refinements have been made to ensure that RevieCart is more relevant and trustworthy for its customer segments. The validated BMC is explained as follows:

i. Customer Segments (CS)

RevieCart primarily serves four interconnected customer segments within its hyperlocal surplus redistribution ecosystem. On the demand side are price-sensitive consumers, including students, low-income households (B40), and budget-conscious families who are struggling with the rising cost of living. These individuals are motivated by affordability and convenience and are highly receptive to discounted goods that remain safe and usable. This segment is validated by the survey, where 46% of respondents were aged 18–24 and 32% were students. Beyond this, there is also a growing segment of eco-conscious consumers who are motivated not only by price but also sustainability. They see value in purchasing near-expiry or slightly defective products because it reduces waste and supports responsible consumption.

On the supply side are retailers and merchants such as supermarkets, pharmacies, and convenience stores. This group represented 52% of survey respondents. These businesses face the challenge of unsold, near-expiry, or defective inventory (an issue reported by 60% of surveyed merchants), which often results in financial losses and disposal costs. RevieCart provides a structured marketplace to recover value from these products while enhancing their sustainability credentials.

In addition, RevieCart recognizes the potential role of community organizations, NGOs, and local mosque networks as supporting ecosystem partners for awareness campaigns and sustainability outreach initiatives. Previous studies on the Network-of-Mosques (NoM) framework highlight the ability of mosque-centered community ecosystems to support localized empowerment and collaborative social initiatives [15][16][17]. However, RevieCart primarily operates as a commercial digital marketplace platform connecting buyers and sellers through hyperlocal commerce.

ii.Value Propositions (VP)

For consumers, RevieCart offers affordable access to essential goods at discounts ranging from 50 to 80 percent, aligning with the 26% of users who prefer discounts above 50% and 32% favoring 30-50%. This directly addresses the pain point of rising living costs while ensuring safety and transparency through features such as clear expiry date displays (deemed essential by 66% of respondents), product conditions descriptions (required by 64%), verified retailer badges, and refund or return policies. These additions directly mitigate the safety and health issues raised by 76% of respondents. The platform also introduces engaging elements like “mystery box deals” to make shopping fun and viral, while reinforcing trust through transparency. For retailers, RevieCart provides a new digital sales channel that allows them to recover financial losses, reduce disposal costs, and improve inventory turnover. Importantly, it positions them as socially responsible businesses by aligning their operations with sustainability goals, which strengthens their brand reputation and customer loyalty.

iii.Customer Relationships

RevieCart builds relationships with its users through a trust-driven and user-centric approach. The platform is designed for self-service, allowing customers to manage their accounts and purchases independently, while also receiving real-time notifications about nearby deals. User reviews and rating create a feedback loop that enhances transparency and addresses the 54% of respondents concerned with product quality, while verified retailer badges reassure customers about product safety. Refund and return policies further strengthen trust, which 52% of users explicitly identified as essential for building confidence, ensuring that customers feel secure in their purchases. To deepen engagement, RevieCart can introduce loyalty programs that reward frequent buyers with points or eco-badges, encouraging repeat use and reinforcing the sustainability mission. This combination of trust, transparency, and engagement ensures long-term customer relationships.

iv.Channels

RevieCart reaches its users through both digital and hyperlocal physical channels. The mobile application serves as the primary platform, validated by 60% of respondents expressing direct interest in an app aggregating nearby deals, supported by a web version for broader accessibility. Social media marketing through platforms such as Instagram and TikTok helps attract younger, mobile-first users, while partnerships with local retailers ensure a steady supply of discounted goods. Location-based notifications enhance convenience by alerting users to nearby deals, which is crucial for the 26% of users

who are only willing to travel less than 1 km. Integration with popular e-wallets such as Touch 'n Go, Boost, and GrabPay further aligns the platform with Malaysia's growing digital payment ecosystem.

Beyond digital channels, RevieCart may also leverage physical community-based channels through the Network-of-Mosques (NoM) framework. Beyond digital channels, RevieCart may collaborate with community-based networks such as NGOs or mosque communities for awareness campaigns related to food waste reduction and sustainable consumption. Studies on the Network-of-Mosques (NoM) framework demonstrate the effectiveness of localized community ecosystems in supporting collaborative social initiatives and digital engagement [15][16][17]. Nevertheless, RevieCart's primary operational model remains focused on a technology-driven hyperlocal marketplace similar to existing on-demand platform ecosystems.

v.Key Resources

RevieCart relies on several critical resources to deliver its value proposition. These include the digital platform itself, supported by cloud infrastructure for scalability and reliability. A strong retailer network ensures a steady flow of products, while data management and analytics systems provide insights into consumer behavior and inventory trends. The trust and verification system is essential for building credibility, incorporating features such as expiry scanning to meet the demands of the 66% wanting clear labeling and seller rating algorithms. Finally, the development and operations team plays a central role in maintaining and improving the platform, ensuring that it remains user-friendly, transparent, and trustworthy.

vi.Key Activities

The core activities of RevieCart revolve around platform development, retailer onboarding, and user acquisition. Continuous system performance monitoring and user experience enhancements ensure reliability and ease of use. To address trust and safety concerns identified in the survey (the primary barrier for 76% of users), RevieCart incorporates product verification and quality control processes, including expiry date scanning and seller audits. The platform also invests in trust and safety management, such as handling refunds and moderating reviews. Looking ahead, advanced features like AI-driven expiry prediction can automatically suggest discounts and optimize inventory clearance, while educational content on safe consumption of near-expiry goods can build consumer confidence and reinforce the platform's credibility.

vii.Key Partnerships

RevieCart collaborates with a range of partners to strengthen its ecosystem. Retailers and merchants provide the product supply (validated by the 78% of surveyed merchants willing to participate), while logistics providers enable delivery services for customers who prefer home drop-offs (accommodating the mixed travel willingness where 26% prefer not to travel beyond 1 km). Payment gateway providers ensure seamless transactions, and government agencies supporting sustainability initiatives lend credibility and alignment with national priorities. Technology partners contribute to platform development and innovation. Beyond these, partnerships with NGOs and sustainability groups can enhance RevieCart's reputation as a socially responsible platform, while collaborations with universities can help attract student users and provide research support for continuous improvement.

viii.Cost Structure

The cost structure of RevieCart reflects its dual focus on technology and trust. Major expenses include platform development and maintenance, marketing and promotional activities, staff salaries, and operational costs. Technology infrastructure costs cover cloud services and data management systems, while customer support and verification processes require dedicated resources to ensure transparency and safety against the high 76% safety concern barrier. Additional costs may arise from trust verification measures such as expiry scanning and audits, as well as CSR-focused marketing campaigns that highlight the platform's sustainability impact and help convert the 34% of consumers who currently express reluctance.

ix.Revenues Streams

RevieCart generates revenue through multiple streams that balance accessibility with profitability. Transaction commissions from sales provide a steady income, while retailer subscription plans offer businesses access to premium features such as analytics dashboards and sustainability badges, a highly viable model given that 78% of merchants want an avenue to sell these products. Delivery service fees add another revenue source, particularly for customers who prefer convenience. Featured listings and promotions allow retailers to boost visibility for their products. In addition, eco-brand sponsorships can provide revenue by aligning RevieCart with companies that want to be recognized as green partners, further reinforcing

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the platform's sustainability mission. RevieCart stands out as a Blue Ocean innovation in Malaysia's digital economy. Unlike crowded e-commerce platforms such as Shopee or traditional clearance sales, RevieCart creates a structured marketplace specifically for near-expiry and defective goods. This unique positioning directly addresses the urgent problem of product waste and rising living costs, while aligning strongly with sustainability goals under the 13th Malaysia Plan. By transforming waste into value, RevieCart not only helps consumers save money and businesses recover losses but also contributes to responsible consumption and sustainable economic growth.

B. Business Environment Map (EM)

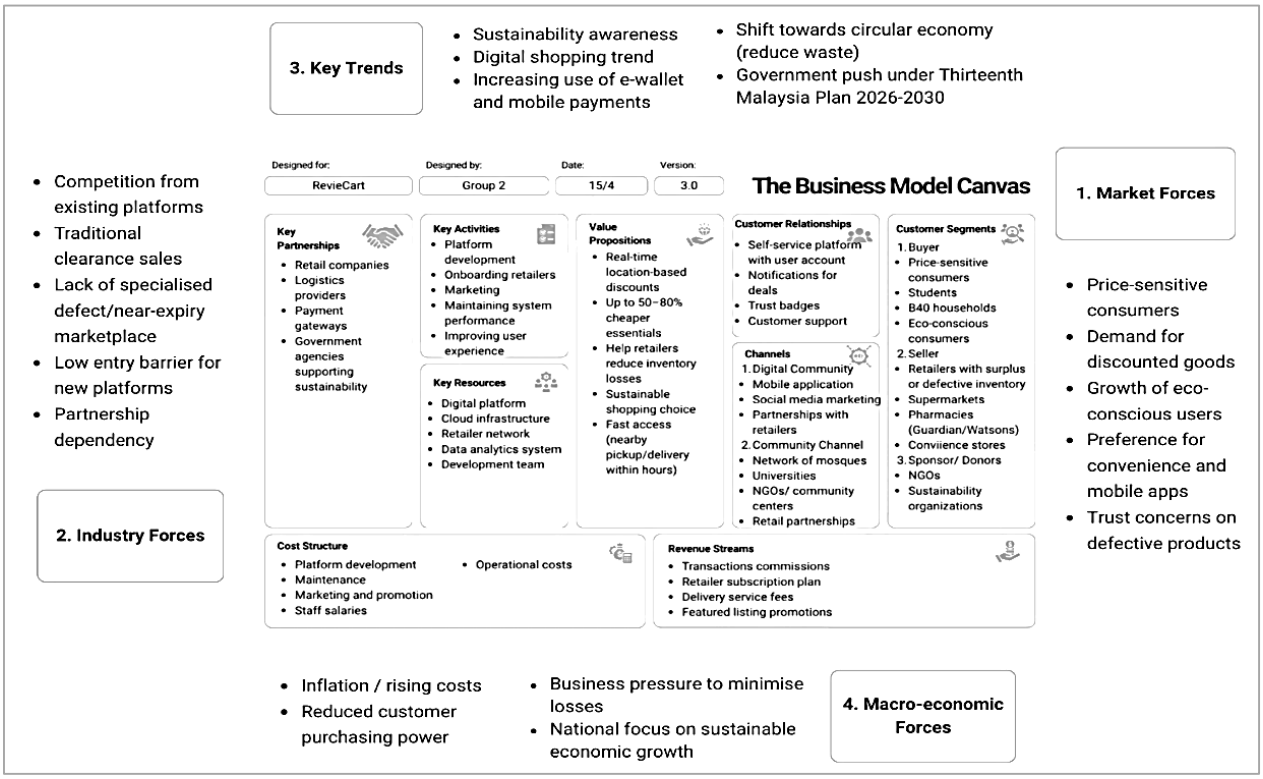

Fig. 9: Environment Map

i. **Market Forces:** RevieCart serves a market that is highly price-sensitive due to the increasing cost of living. There is a strong demand for discounted goods, particularly among students and low-income households [13]. Additionally, there are a growing number of consumers who care about the environment because they have learned how to consume sustainably [3]. However, the issue of trust regarding defective or near-expiry products remains a major concern that must be addressed, as consumer perception of product quality significantly influences purchase decisions [18].

ii. **Industry Forces:** The market environment is influenced by competition from existing online marketplaces and traditional retail clearance channels. It was discovered that retailers have great potential to reduce food loss with the help of such as discounting, redistribution, and repurposing unsold goods [19]. Nevertheless, such activities occur independently from each other and are not fully optimized on digital platforms. Although some international platforms address surplus food, the near-expiry and defective goods segment remain underdeveloped in many markets, presenting an opportunity for RevieCart. Moreover, easy accessibility to digital platforms increases competitive pressure, and maintaining robust ties with retailers and logistics companies becomes essential for the success of the platform.

iii. **Key Trends & Insights:** There is a trend emerging toward sustainability and technology usage among consumers where more people are using e-commerce, e-wallets, and mobile payment methods [20]. Academic studies also show that consumers are increasingly willing to adopt sustainable consumption practices, particularly when supported by convenient digital platforms [21][22]. Additionally, national initiatives such as the Thirteenth Malaysia Plan (2026–2030) emphasize sustainable development and digital transformation, aligning with RevieCart's mission [7]. This demonstrates the importance and relevance of RevieCart to be socially responsible while reducing wastage among other factors.

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iv. **Macro-economics Forces:** The macroeconomic situation in Malaysia involves issues of inflation and increased costs, adversely affecting the purchasing power of consumers [21]. This may drive up the demand for low-cost products among consumers. Companies face pressures to reduce losses from excess stocks, especially in retail and the food industry [1]. The country is experiencing a trend towards sustainable economic growth and development, offering a good opportunity for new business ventures with added value to the economy, society, and the environment [4]. This environment supports the relevance of RevieCart as a solution that addresses both affordability and sustainability challenges.

C. Strategy Canvas

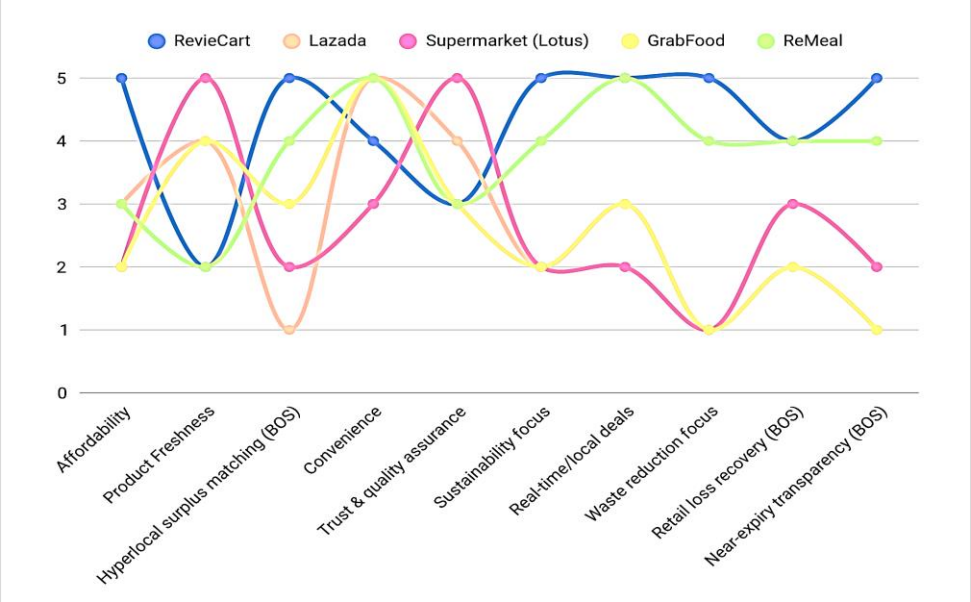

Fig. 10: Strategy Canvas

The Strategy Canvas illustrates how RevieCart differentiates itself from competitors such as Lazada, Lotus's Malaysia, GrabFood, and ReMeal across key competitive factors, including affordability, product freshness, convenience, trust and quality assurance, sustainability focus, real-time/local deals, and waste reduction focus. In addition, RevieCart introduces several unique Blue Ocean Strategy (BOS) factors that are currently underserved by existing competitors, namely hyperlocal surplus matching, retail loss recovery, and near-expiry transparency. These factors emphasize RevieCart's role in connecting nearby consumers with nearby retailers offering surplus, near-expiry, or defective goods in real time, while also helping retailers recover financial losses from unsold inventory, supporting sustainable retail practices and circular economy initiatives [19][21].

As shown in the chart, RevieCart scores highly in affordability, sustainability focus, real-time/local deals, waste reduction focus, and the newly introduced BOS factors, compared to other platforms that mainly compete on product freshness, variety, and convenience. It can thus be concluded that RevieCart shifts the basis of competitive advantage from traditional value-based competition towards solving the issues of increasing cost of living, retail wastage, and unsold inventory management. This also reflects the growing consumer acceptance towards sustainable and surplus-based consumption models [22].

This positioning aligns strongly with its customer segments, particularly price-sensitive customers such as students and low-income households, as well as eco-conscious consumers. This is because price and sustainability are becoming key factors in consumer decision making [3][13]. Studies further indicate that consumers are increasingly open to purchasing surplus and near-expiry products when transparency and affordability are provided [3][22].

According to the BOS approach, RevieCart makes a differentiation through value innovation that involves differentiation and low cost [23]. The approach used by RevieCart includes creating a differentiated hyperlocal platform that is focused on selling close-to-expiry and defective goods that existing platforms do not directly focus on. By introducing new value factors such as hyperlocal surplus matching, retail loss recovery, and near-expiry transparency, RevieCart creates an uncontested market space that differentiates it from traditional e-commerce and food delivery platforms.

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Therefore, RevieCart can be classified as a "purple cow" due to having a unique offer which stands out among other companies [24]. The unique offer helps RevieCart to differentiate itself from others while addressing issues such as environmental and economic concerns at once.

D. Low Fidelity Wireframe/Mock-up/Prototype of Digital Platform/ App

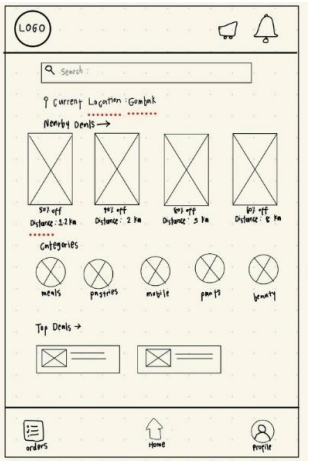

Fig. 11: Home Page

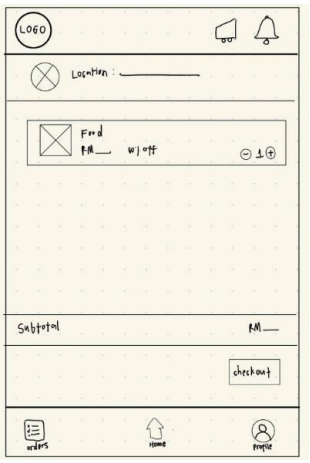

Fig. 12: Cart Page

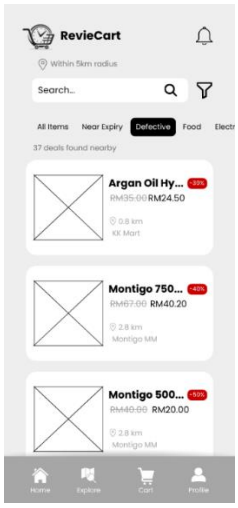

Fig. 13: Defect Category

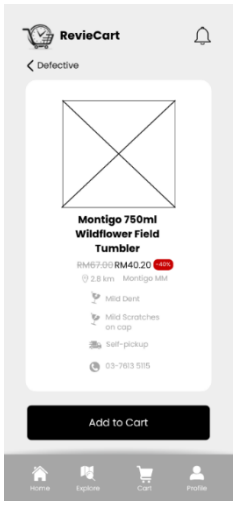

Fig. 14: Product Detail

Fig. 15: Confirmation Order Page

Above show the wireframe for the RevieCart mobile application. This wireframe illustrates the process when customers want to buy goods or food. Fig 11, the homepage displays the categories, top deals and nearby deals based on their location. Users can also browse their needs. Fig 12, the second page is the cart page, which shows all the goods that have been added to the cart, and shows the subtotal.

As seen in Fig 14 and Fig 15, since RevieCart deals with "Perfectly Imperfect" goods, the UI explicitly lists defects (scratches, dents) and fulfillment options (Self-pickup), fulfilling the need for transparency and quality assurance. Lastly, Fig 13 is the confirmation page, where the order is finalized, which also serves as the final emotional "reward" for the user, confirming their successful contribution to waste reduction.

A key differentiator for RevieCart is the integration of AI agent capabilities that transform the platform into an active, intelligent ecosystem. For sellers, an AI-driven dynamic pricing engine analyses a product's remaining shelf life, historical sales velocity, and local demand signals to recommend optimal discount percentages, enabling retailers to treat the platform as a Profit Recovery tool rather than a charity. Seller dashboards powered by machine learning surface insights such as the best times to list specific product categories and predicted clearance rates, supporting data-informed inventory management.

For buyers, AI agents reduce Refund Friction by setting realistic expectations at the point of discovery: an AI-generated product summary highlights the nature of defects, remaining shelf life, and use-by recommendations, reducing post-purchase dissatisfaction and disputes. AI-powered personalisation further enhances the buyer experience through location-aware deal recommendations and eco-badge rewards for sustainable purchasing behaviour, deepening engagement and reinforcing RevieCart's sustainability mission.

VIII. CONCLUSION AND FUTURE WORKS

In conclusion, this study highlights the critical challenges faced by both consumers and retailers in Malaysia due to rising living costs and increasing levels of food and product waste. Price-sensitive consumers, particularly students and low-to-middle-income groups, struggle to access affordable essential goods, while retailers face financial losses from unsold, near-expiry, or defective inventory. These challenges reflect key jobs-to-do: consumers seek affordability and convenience, while retailers aim to recover losses and manage inventory efficiently. The extreme pains identified include the high cost of living, lack of access to reliable discounted products, and inefficiencies in clearance methods. Conversely, the essential gains revolve around affordability, trust, convenience, and sustainability. RevieCart addresses these issues through a differentiated value proposition by offering a hyperlocal digital marketplace that connects consumers and retailers in real time. Serving as an effective pain reliever and gain creator, its key features, including location-based deals, transparent product information, verified retailers, and flexible delivery options, directly resolve these market gaps. Unlike existing platforms, RevieCart integrates affordability, waste reduction, and digital convenience into a single ecosystem, positioning it as a relevant and innovative solution that directly supports the National Agenda.

For future work, the development of RevieCart should be extended into a comprehensive business plan based on the validated business model. Immediate next steps include building a functional, high-fidelity prototype of the mobile application, conducting large-scale user testing, and refining features related to trust, safety, and user experience. Further research should also explore the integration of advanced technologies, such as artificial intelligence and data analytics, for demand prediction and inventory optimization. Crucially, while RevieCart is currently designed for the Malaysian demographic, future iterations should explore its expansion from a localized framework into an adaptive, worldwide platform. By developing a scalable and customizable architecture, the platform could adapt to diverse global markets, addressing international retail waste and cost-of-living crises on a broader scale. Finally, expanding strategic partnerships with local and international retailers, logistics providers, and government agencies will be essential to ensure the long-term sustainability and global scalability of the platform.

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