



TECHNOLOGY ENTREPRENEURSHIP (ENT600)

**GROUP ASSIGNMENT:
NEW PRODUCT DEVELOPMENT**

**COMPANY NAME:
CASTANEA PTE LTD**

**PRODUCT NAME:
CASTANEA BRA**

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1.0 EXECUTIVE SUMMARY

The Castanea Bra is a technologically advanced innovation in intimate wear which is a bra that redefines design and comfort. This report discusses its development, addressing customer issues ranging from itching to breathability. The Castanea Bra, motivated by discomfort, is a ground-breaking solution that combines cooling materials and anti-microbial features. The methodology, which is based on a Consumer Trend Canvas, a Google Form survey, research, and observation, contributes to the evolution of the Malaysian intimate wear industry by aligning with changing customer expectations.

Research and development was made systematically to produce a new and innovative product. The final outcome of the design was made by generating ideas during the brainstorming session. All resources were made use to gather all the information regarding the latest design and technology, issues, demands, and others to which they were finally screened out to filter and select the best and promising results. After it was all finalised, sketches of the design and features were made according to the gathered information before choosing the right materials. This innovation focuses primarily on the comfort for the women's breasts of all sizes so that they can have a great experience upon wearing it daily. Finally, a market survey was made to learn more about our target market and validate our customers' needs. In addition, concept testing was applied to obtain information and responses from the respondents. Furthermore, a building prototype of the Castanea Bra was sketched, showing the front view, back view, and the inside layer of the bra cup for a detailed look.

Next, test marketing was conducted by making an online survey of the general population to find out their opinion regarding the upcoming product. In this way, various alternatives can be made to improve the product. The Consumer Trend Canvas (CTC) was done based on the basic needs, drivers of change, innovation potential, emerging customer expectations, inspiration, and the customer group that applies to this trend. This CTC helped in providing the structured framework to understand more about the product.

2.0 INTRODUCTION

The simultaneous development of technology and intimate wear has given rise to a revolutionary creation in the dynamic tapestry of design and innovation—the Castanea Bra. As we engage on this expedition of new product development, we will be aiming to rise beyond the traditional limitations of undergarments, into a world where comfort, technology, and consumer needs will seamlessly converge. This paper analyses the formation and development of the Castanea Bra, diving into the complexities of intimate wear, the transforming power of innovative technology, and the consumer issues that were brought to this revolutionary development.

In the modern era of technological speculations, applying technology to every aspect of our daily lives is no longer a luxury but a necessity. The Castanea Bra is a monument to this confluence, bringing together innovative technologies that revolutionise intimate wear paradigms. The Castanea Bra is more than a garment; it is a symphony of functionality and improvement, with breakthroughs in cooling fabrics such as phase-change materials and moisture-wicking textiles, as well as the incorporation of anti-microbial elements. The acceptance of the intimate relationship women have with their undergarments, particularly the bra, is at the centre of this innovation. Aside from its main function, the bra represents a complex combination of comfort, style, and personal expression. The Castanea Bra aims to enrich this relationship by addressing not only the immediate needs of support and fit but also the small details that characterise a woman's intimate wear experience.

The decision to begin the journey of developing the Castanea Bra was motivated by an expert consciousness of the difficulties women face when wearing regular intimate wear. We noticed an important need for an innovative solution, from the typical discomfort of itchiness to the broader difficulties associated with breathability, size inclusivity, and durability. This study will discuss these difficulties, presenting them as the driving factor behind the Castanea Bra's conceptualization and development.

2.1 PROBLEM STATEMENT

The widespread availability of the typical bra underlines an issue that all bra wearers experience which is the constant accumulation of heat and sweat inside the cup of the bra. This recurring issue, which may be considered an unavoidable trade-off for support, casts a shadow on the wearer's experience, reducing not only immediate comfort but also posing long-term threats to skin health. As we research the complexities of this situation, we discover possibilities within typical bra designs. The status quo demands a departure, an innovative reinvention of the bra as more than simply an undergarment but as a haven of comfort. In this context, our determination to create a bra with a cooling sensation effect becomes not only an alternative but it becomes a paradigm shift. This report aims to explain the specifics of this long-standing issue, providing a thorough understanding of the challenges faced by wearers and laying an outline for a product that not only addresses but exceeds expectations, demonstrating a course toward unparalleled comfort and support.

The Malaysian intimate apparel market, while rich in cultural diversity, is not susceptible to the issues encountered by women worldwide. As we explore deeper into the complexities of consumer trends, it becomes clear that basic requirements like comfort, breathability, size inclusivity, perfect fit, and durability are at the heart of intimate wear preferences. Furthermore, increased awareness of breast health and the promotion of self-confidence have emerged as important factors for change. Consumers are looking for innovations that go beyond traditional options in order to maintain breast weight during activities, prevent breast movement, and avoid sagging. The Castanea bra is one such innovation established to address these issues. The Castanea bra offers a significant improvement in intimate wear, inspired by the widespread issue of itching experienced by most women using bras, as well as developments in consumer expectations toward a cooling sensation, high-quality, and anti-microbial materials, at a reasonable cost. This innovation not only matches increasing consumer demands but also taps into the innovation potential for everyday use by combining cooling fabrics, such as phase-change materials or moisture-wicking textiles, and cooling pads.