

GLOBAL ACADEMIC RESEARCH INSTITUTE

COLOMBO, SRI LANKA



GARI International Journal of Multidisciplinary Research

ISSN 2659-2193

Volume: 06 | Issue: 03

On 30th September 2020

<http://www.research.lk>

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GARI Publisher | Textiles and Fashion Design | Volume: 06 | Issue: 03

Article ID: IN/GARI/ICATFD/2020/118 | Pages: 99 - 121 (22)

ISSN 2659-2193 | ISBN 978-955-7153-02-5

Edit: GARI Editorial Team | Received: 20.08.2020 | Publish: 30.09.2020

PLUS SIZE CLOTHING CHALLENGES AND NEW OPPORTUNITIES FOR ATHLEISURE WOMEN'S WEAR

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ABSTRACT

Being a plus size middle aged woman is a special confidence level, because they concentrate about their health while accepting the fact that they are oversized. To continue an active lifestyle, they have been created a market demand for athleisure wear not only because of the health conscious lifestyle but also it is an acceptable dress code in the working environment to live a fashionable lifestyle. Initially, plus size women's wear have been explored and the data collection was focused in Sri Lankan market. The FEA model was followed to investigate the product attributes and presents the requirement analysis of such clothing. The fear of getting non-communicable diseases (NCD), being busy at work place and lack of time to do exercises, fashion consciousness and high BMI rates motivates plus size ladies to get engaged in activities like jogging, cycling and yoga. Further this study expected to explore the potential opportunities in plus size athleisure market and present the requirement analysis for product design & development. Qualitative research methods were utilized mainly a survey conducted by meeting the relevant participants and extended further open-ended questions by face-to-face interviews with them. Mainly, wearer's responses were collected in their buying behaviour, problem identification and customer satisfaction, consumer preferences in athleisure category.

This study has found out that most of the Sri Lankan plus size middle aged ladies are working women who are busy with their routine and unable to utilize effective time for physical exercises. As preferences, they will be worn black or any dark color, cotton knitted fabric, functional & fashionable athleisure wear not only as a workout wear but as a whole day wear.

Keywords: - Athleisure, FEA model, Plus size clothing, Product attributes

INTRODUCTION

Background of the study

As fashion world is getting more and more competitive, people start to explore it more and more. Not like back in the days, nowadays almost all of the plus size women do not worry about their body sizes because they love their body and give the value to their body. Size 12 body concept is fading away since plus size women came out of the cage and showed their beauty without disappointments. The size of the 'ideal female body' is also getting bigger because of the influence of plus size women to the fashion world. "Studies show that it is possible to be overweight and even obese and fit" (Mitton, 2019).

"What determines your health is how physically active you are, not how thin you are" (Nast, n.d.). This statement shows the

importance of a healthy lifestyle for any body size.

Since most of the plus size middle aged women are working women, they cannot engage in a sport because for a sport they have to get ready, need specific clothes and accessories, most importantly they need dedicated time for that. This research also is to find out what are the activities ladies would do to maintain a healthy life while having a busy lifestyle (Study 01 – Appendix III).

Women’s Plus Size Athleisure Market in the world

The definition of ‘Athleisure wear’ – “According to Merriam-Webster, Athleisure definition is casual clothing designed to be worn both for exercising and for general use” (Hanif, 2018).

In other ‘fashion conscious’ countries, consumers and designers are focusing about athleisure wear categories and offering many choices to consumers to make sure their high standard lifestyle. Apart from athleisure there are many categories such as ath-work, work to jogging, work to run, work to gym kind of categories that inspire consumers to be active in a possible way. Even though there is a huge demand in athleisure wear market, most of the international brands not offering plus size athleisure wear due to, more time consuming, more difficult and more expensive to create the extended sizes. Lacking athleisure wear garments for PS is a common issue to the whole world. When it comes to Sri Lanka, it is very hard to find garments even though Sri Lankan rate of obesity is increasing day by day. “In this first national level study on obesity in Sri Lankan adults, we have shown an alarmingly high prevalence of overweight and obesity especially, in Sri Lanka. Comparison with previous studies indicates an increasing trend of obesity overtime. Being female, physical inactivity, higher income, high level of education, urban living and being in the middle age are associated with obesity

among Sri Lankan adults” (Katulanda, Jayawardena, Sheriff, Constantine, & Matthews, 2010).

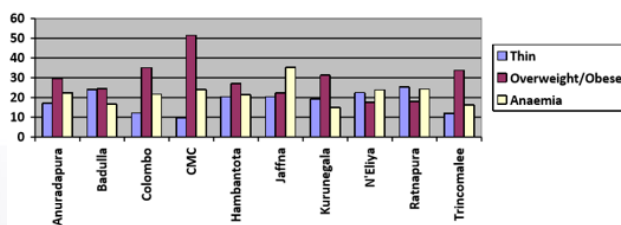


Figure - overweight, obese and Anaemia distribution in Sri Lanka

(2009-Nutrition-and-Food-Security-in-women-SL-.pdf, n.d.-a)

“According to the area of residence the prevalence of overweight, obesity and central obesity were higher in urban population compared with rural population both in men and women. In particular, over half of urban women were centrally obese” (Katulanda et al., 2010a).

Table 4 Prevalence (95% CI) of overweight and obesity by the area of residence according to existing cut-offs for Asians

| | | Overweight | Obese | Centrally obese |
|-------|---------|------------------|------------------|------------------|
| Urban | Male | 30.6 (28.2-32.9) | 16.4 (14.5-18.3) | 28.9 (26.6-31.2) |
| | Female | 34.8 (32.3-37.3) | 20.7 (18.6-22.8) | 53.2 (50.6-55.7) |
| | Overall | 32.7 (30.9-34.7) | 18.5 (17.1-19.9) | 40.8 (39.0-42.6) |
| Rural | Male | 20.4 (19.4-21.5) | 4.7 (4.1-5.2) | 13.2 (12.3-14.0) |
| | Female | 26.2 (25.0-27.4) | 8.7 (8.0-9.5) | 31.8 (30.5-33.0) |
| | Overall | 23.3 (22.5-24.1) | 6.7 (6.2-7.1) | 22.3 (21.5-23.1) |

Figure - Overweight and Obesity rate in Asians

“The middle aged women had the highest levels of overweight and obesity and the prevalence became lower in older age groups. Compared with generalized obesity, central obesity remained disproportionately high in the older age groups” (Katulanda, Jayawardena, Sheriff, Constantine, & Matthews, 2010b).

| | Age (years) | Overweight | Obese | Centrally obese |
|--------|-------------|------------------|------------------|------------------|
| Male | 20-29 | 17.5 (15.8-19.2) | 4.4 (3.5-5.4) | 7.5 (6.3-8.6) |
| | 30-39 | 26.7 (24.6-28.8) | 11.3 (9.7-12.8) | 22.7 (20.7-24.7) |
| | 40-49 | 22.6 (20.5-24.8) | 10.7 (9.2-12.3) | 19.0 (17.0-21.0) |
| | 50-59 | 29.3 (26.6-32.1) | 4.1 (2.9-5.3) | 18.9 (16.6-21.2) |
| | 60-69 | 21.2 (17.9-24.4) | 1.0 (0.2-1.8) | 16.5 (13.6-19.5) |
| | >70 | 13.6 (10.4-16.9) | 8.0 (5.4-10.6) | 17.3 (13.7-20.9) |
| Female | 20-29 | 23.7 (21.7-25.6) | 5.3 (4.3-6.3) | 23.1 (25.1-27.0) |
| | 30-39 | 29.1 (26.9-31.3) | 15.9 (14.1-17.7) | 40.6 (43.1-45.5) |
| | 40-49 | 33.6 (31.0-36.0) | 16.4 (14.4-18.3) | 44.4 (47.0-49.7) |
| | 50-59 | 33.0 (30.0-36.0) | 12.8 (10.7-15.0) | 41.1 (44.3-47.4) |
| | 60-69 | 23.2 (20.0-26.4) | 9.4 (7.1-11.6) | 35.1 (38.9-42.6) |
| | >70 | 22.8 (19.2-26.3) | 4.6 (2.9-6.4) | 7.9 (10.5-13.1) |

Table 5 Age specific prevalence (95% CI) of obesity among males and females according to Asians cut-off levels

Figure - Male and Female Obesity and Overweight distribution according to age ranges

Table 3 Prevalence (95% CI) of overweight and obesity by gender according to cut-offs for Asians and Caucasians

| | Overweight (%) | Obese (%) | Centrally obese (%) |
|----------|------------------|------------------|---------------------|
| Men* | 22.6 (21.6-25.5) | 7.2 (6.6-7.8) | 16.5 (15.6-17.3) |
| Women* | 28.0 (26.9-28.1) | 11.3 (10.5-12.0) | 36.3 (35.1-37.4) |
| Overall* | 25.2 (24.5-26.0) | 9.2 (8.7-9.7) | 26.2 (25.5-26.9) |
| Men† | 14.3 (13.5-15.1) | 2.6 (2.2-2.9) | 3.1 (2.7-3.5) |
| Women† | 19.4 (18.5-20.4) | 4.8 (4.3-5.3) | 18.9 (17.9-19.8) |
| Overall† | 16.8 (16.2-17.4) | 3.7 (3.4-4.0) | 10.8 (10.3-11.3) |

Figure - Overweight and Obesity rates

Above chart shows the Sri Lankan adult women overweight, obese and centrally obese rates are 28.0%, 11.3% and 36.3% respectively.

The Plus size, Middle aged, Athleisure wear overview

“Middle aged female rate in Sri Lankan population is 39.34% out of the whole population from age 25 to 54” (2009-Nutrition-and-Food-Security-in-women-SL, n.d.). “Over 45% of women in Sri Lanka are overweight or obese” (“SL women obesity rate exceeds 45%.” n.d.).

With the booming health conscious lifestyle of plus size middle aged women influenced by mainly the non-communicable diseases has increased the demand for athleisure wear both locally and internationally. Sri Lankan brand – ODEL has recognized the need so far and have launched a separate clothing category for athleisure but still they have not extended it up to plus size range.

“With the growing global trend towards fitness, health and wellbeing, where fitness is really a lifestyle now and no longer an option people have recognized the need to stay healthy and fit through regular exercise, with many making a conscious effort to build some form of exercise into their weekly routines.” (Daily FT, 2018).

Definition for ‘Athleisure’

“In this first national level study on obesity in Sri Lankan adults, we have shown an alarmingly high prevalence of overweight and obesity especially, in Sri Lanka. Comparison with previous studies indicates an increasing trend of obesity overtime. Being a female, physical inactivity, higher income, and high level of education, urban living and being in the middle age are associated with obesity among Sri Lankan adults” (Katulanda et al., 2010a). “The fastest growing segment of the fashion industry has been “athleisure”, which Merriam-Webster defines as casual clothing designed to be worn both for exercising and general use (Cheng)” (Madrigal, n.d.).

Women’s health conscious lifestyle in Sri Lanka

“With the increasing global awareness on the importance of being and staying fit, while leading fashion labels have also increased their focus on creating trendy and fashionable athleisure as well as ath-luxury brands with a view to bringing performance and style details together seamlessly without compromising on one or the other, ODEL, being at the forefront of fashion and lifestyle, will launch Fitness Week which we intend making an annual event,” (Mitton (2019,June).

History of “Athleisure” wear?

The birth of athleisure wear is in 1970’s where fitness became a lifestyle trend. Because of this trend lots of people wore casual clothing for exercises those days.

Sports brands took this as an opportunity and began to improve casual clothes suitable for athletic activities. Subsequently, with the materials like Lycra, spandex, nylon and other synthetic fabrics the innovations led the trend to a huge lifestyle trend. The reason why people love athleisure wear is simply because of the comfortability so those happened to be a choice for casual clothing. Sports brands kept developing these athleisure categories more and more by adding values such as breathability, lightweight, UV protection and waterproof and etc.

Cross sectional survey

This is a cross-sectional survey which is conducted where the researcher aims to collect data from a sample of target population at a given time. Researchers can evaluate various variables at a particular time frame.

Study 01 – Identify

Pilot survey 01 and Pilot survey 02

Study 01 is for highlight ‘there was no existing evidence’ to present the research problem, therefore study 01 was carried out to explore the market gap. This below main details has define the scope of the research area and main survey has conducted based on this collected data.

Table – identifying the exact market segment.

| Task | Results / Gathered data | | | | | | |
|--|--|-------|-------|-------|-----|------------|-------|
| To identify what is the most common plus size age range. | <p>Most common plus size women age range</p> <table border="1"> <tr> <td>15-29</td> <td>18.7%</td> </tr> <tr> <td>30-45</td> <td>68%</td> </tr> <tr> <td>46 & above</td> <td>13.3%</td> </tr> </table> | 15-29 | 18.7% | 30-45 | 68% | 46 & above | 13.3% |
| 15-29 | 18.7% | | | | | | |
| 30-45 | 68% | | | | | | |
| 46 & above | 13.3% | | | | | | |

| | | | | | | | | | |
|---|---|------------|------|---------|------|-------|-----|------------|-------|
| | <ul style="list-style-type: none"> 68% of ladies are belongs to age 30 – 45 range which can define as middle-aged women segment. | | | | | | | | |
| To check the BMI rates to identify health conditions. | <p>BMI Rate</p> <table border="1"> <tr> <td>Lower 18.5</td> <td>3.3%</td> </tr> <tr> <td>18.5-25</td> <td>7.3%</td> </tr> <tr> <td>25-30</td> <td>26%</td> </tr> <tr> <td>30 & above</td> <td>63.3%</td> </tr> </table> <ul style="list-style-type: none"> 63.3% of ladies are in obese level and 26% ladies are in overweight level which is above the BMI healthy range. | Lower 18.5 | 3.3% | 18.5-25 | 7.3% | 25-30 | 26% | 30 & above | 63.3% |
| Lower 18.5 | 3.3% | | | | | | | | |
| 18.5-25 | 7.3% | | | | | | | | |
| 25-30 | 26% | | | | | | | | |
| 30 & above | 63.3% | | | | | | | | |

| | | | | | | | |
|---|--|-----------|-------|------|-----|-----------|------|
| This is to identify what most of the plus size ladies are doing / occupation etc. | <p>What plus size women do</p> <table border="1"> <tr> <td>Study/Uni</td> <td>15.3%</td> </tr> <tr> <td>Work</td> <td>80%</td> </tr> <tr> <td>Housewife</td> <td>4.7%</td> </tr> </table> <ul style="list-style-type: none"> 80% out of the total ladies are working women. | Study/Uni | 15.3% | Work | 80% | Housewife | 4.7% |
| Study/Uni | 15.3% | | | | | | |
| Work | 80% | | | | | | |
| Housewife | 4.7% | | | | | | |

| | | | | | |
|--|---|--------|------|---------|-------|
| Which type of activity type they like to do. | <p>Jogging type activities Vs Specific sport</p> <table border="1"> <tr> <td>Sports</td> <td>5.3%</td> </tr> <tr> <td>Jogging</td> <td>94.7%</td> </tr> </table> <ul style="list-style-type: none"> 94.7% ladies like to do jogging, cycling and yoga type activities over sports. | Sports | 5.3% | Jogging | 94.7% |
| Sports | 5.3% | | | | |
| Jogging | 94.7% | | | | |

| | | | | | | | | | | | | | |
|--|---|-------|---|-------|----|-------|----|-------|----|-------|----|-------------|---|
| To find out what is the most common plus size. | <p>Body sizes according to UK sizes</p> <table border="1"> <tr> <td>UK 14</td> <td>9</td> </tr> <tr> <td>UK 16</td> <td>26</td> </tr> <tr> <td>UK 18</td> <td>86</td> </tr> <tr> <td>UK 20</td> <td>15</td> </tr> <tr> <td>UK 22</td> <td>12</td> </tr> <tr> <td>UK 24 or up</td> <td>5</td> </tr> </table> <ul style="list-style-type: none"> 57.3% of ladies are UK size 18 which can consider as the most common plus size. | UK 14 | 9 | UK 16 | 26 | UK 18 | 86 | UK 20 | 15 | UK 22 | 12 | UK 24 or up | 5 |
| UK 14 | 9 | | | | | | | | | | | | |
| UK 16 | 26 | | | | | | | | | | | | |
| UK 18 | 86 | | | | | | | | | | | | |
| UK 20 | 15 | | | | | | | | | | | | |
| UK 22 | 12 | | | | | | | | | | | | |
| UK 24 or up | 5 | | | | | | | | | | | | |

| | | | | | | | |
|--|--|-------|-------|------------|-------|--------|-------|
| To find out which clothing category is the most hardest to find plus size clothing category. | <p>Hardest to find plus size clothing category</p> <table border="1"> <tr> <td>Party</td> <td>24.8%</td> </tr> <tr> <td>Athleisure</td> <td>58.8%</td> </tr> <tr> <td>Casual</td> <td>16.3%</td> </tr> </table> <ul style="list-style-type: none"> Athleisure is the most hardest to find plus size clothing category with 58.8%. | Party | 24.8% | Athleisure | 58.8% | Casual | 16.3% |
| Party | 24.8% | | | | | | |
| Athleisure | 58.8% | | | | | | |
| Casual | 16.3% | | | | | | |

The basic idea of study 01:

- Age 30 to 45 is the most common age range which is middle aged women.
- 89.3% of ladies are belongs to overweight and obese level which is above the healthy BMI range.
- 80% of the plus size ladies are working women.
- 94.7% ladies like jogging type activities to maintain health.
- UK size 18 is the most common plus size.
- Athleisure is the most hardest to find plus size clothing category.

Plus Size Middle Aged Athleisure Wear Market Gap



Figure 1-5 market gap identification

Problem statement

Most of the plus size women are facing a common issue which is not having suitable garments for workout needs that can be worn as a whole day wear. Athleisure is a garment category which all plus size women are demanding though designers and manufactures are far behind in fulfilling their needs.

Objectives

Aim

Explore plus size athleisure women's wear market opportunities and the

challenges in designing and present the requirement analysis for such product design and development.

Objectives

1. Identify the buying behaviour of the plus size athleisure wearers.
2. Discover plus size women's athleisure wear attributes according to the consumer preferences and their satisfaction.
3. Analyse those parameters against FEA model.
4. Present the requirements for design and development of plus size athleisure wearers of middle aged women.

Objectives

| | Areas Covered |
|--------------|---|
| Objective 01 | Identify the buying behaviour of the plus size Athleisure wearers. (Income level, motivation to buy athleisure, main concerns when purchase, maximum price range willing to pay for an athleisure top & a bottom, how much spend on athleisure clothing from their total spending for garments for one month, from where they currently shop athleisure) |
| Objective 02 | Discover plus size women's athleisure wear attributes of the consumer preference and their satisfaction. (Consumer's minimum expectations on an Athleisure category, fabric / color / style preferences etc) |
| Objective 03 | Analyse those parameters against FEA consumer needs model. (Functional needs, Expressive needs and Aesthetic needs) |
| Objective 04 | Present the requirements for design & development of plus size athleisure wearers of middle aged women. (Product attributes identification) |

Figure 1-6 Objectives Description

Significance

The importance of this investigative study is finding out a new market gap fashion market that can lead to many new opportunities to fashion design students, fashion business people, fashion bloggers, innovators, fashion designers, mass manufacturers, fashion forecasters and many other people to get a new approach to the fashion world.

Limitations of the study

Target market - Only focused about 78 plus size females, responds only from

locals, age limit – 30 – 45 middle aged and clothing category – only athleisure which can be extended more.

LITERATURE REVIEW

Introduction

What is “Athleisure” wear?

“Athleisure is a simple summation of athletic and leisure. It can be worn for exercise and for general use” (Way, 2018). Athleisure wear is very comfortable garment category which consumer can wear all day long. It is a new trend which is a mix of sportswear and outdoor clothing and it is an emerging market segment. Most of the European and American ladies tend to wear athleisure garments to work, then jogging and for the bar. “As a fashion trend, it is a trend in which active wear; clothes designed for athletic activities are worn for other purposes such as work clothes, casuals, to school or social occasions” (Way, 2018).

What is “Plus Size” in the world? UK, USA and Sri Lanka?

“Nearly 40% of the world’s adult population is overweight and by 2045, we’re on track for almost 25% to be obese” (This is what the ‘perfect body’ looks like according to men and women, 2018).

Table 2-1 what is plus size according to UK, USA and Sri Lanka

| Market | What is 'plus size'? |
|------------------|---|
| UK Market | “One third of UK ladies are size 18 and above according to current research and the average / ideal body size in UK is Size 16 with 36DD bra size” (Xcel. B, 2016). |
| USA Market | “The average American woman actually wears a size 16 to 18, not size 14, as once was assumed” (Brolley (n.d). |
| Sri Lanka market | “In SL, 51.89% of the population is ladies” (Trading Economics, n.d). Since there is no specific female figure size chart in Sri Lanka, both BMI rates and UK size guide has used in this research. |

Issues in current plus size athleisure market in the world and Sri Lanka

Finding correct fitted PS athleisure wear in the market is a common issue. Since most of the brands do not cater to

plus size consumers, they are frustrated. Some companies like Old Navy and New Look have tried to cater to PS athleisure market by adding extra cost to the selling price but still not fulfilling consumer needs.

“However, many brands explain that it is more time-consuming, more difficult, and more expensive to create these extended sizes, which deters them from producing PS athleisure wear altogether” (Wang, n.d.). “The production costs of creating a new measurements grade, combined with the extra fabric required to create larger clothing, shows a potential financial strain for companies to introduce plus sizes” (Madrigan, n.d.).

Athleisure brands / outlets in the world and in SL Market and their available size ranges

Table 2-2 available size ranges in international market

| Brands / Outlets | Available plus size range |
|------------------|------------------------------|
| Day Won | SX – 5X ,0W- 30W for bottoms |
| Dia & Co. | UK 14 – UK 32 |
| Woman Within | 12W – 44W |
| Torrid | USA 10 – USA 30 |
| Old Navy | 1X – 4X |
| Nike | 1X – 3X |

Table 2-3 available plus size range in local market

| Brands / Outlets | Available PS range |
|------------------|-----------------------------------|
| Double XL | Do not offer athleisure garments. |
| ODEL | L, XL, XXL, XXXL |
| Decathlon | L, XL, XXL |
| Nike | L, XL |
| Adidas | L, XL |

Factors influence in Sri Lankan plus size women's demand for athleisure wear?

Following illustration depicts the factors that influence to the athleisure wear demand created by the middle aged women market segment based on the review of literature.

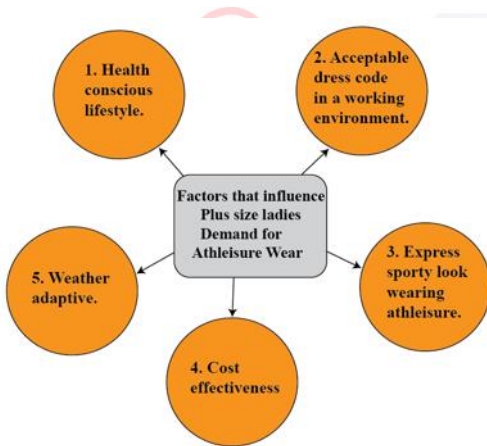


Figure 2-1 Factors affect PS women's demand for athleisure wear

What is FEA Apparel Framework Model?

This model is for assessing user needs and wants incorporates functional, expressive and aesthetic (FEA) considerations. The purpose of this framework is this can be applied to all types of apparel design because it does not distinguish between functional apparel design and fashion design.



Figure 2-2 FEA consumer needs model.

- Functional: - relates to its 'utility'. Ex: - Protection, fit, thermal comfort etc.
- Expressive: - relates to the 'communicative symbolic aspects of dresses. It conveys particular messages and it is attractive. Ex: - Punk attire, wearable arts.
- Aesthetic: - consideration deal with the 'human desire for beauty'. Ex: - Attractive designs.
- All above three factors are dealing with consumer's needs. Consumers can have different needs due to different purposes and by this model all consumer needs can categorize into 3 main key sections which will simplify the analysis process to design a garment.

RESEARCH METHODOLOGY

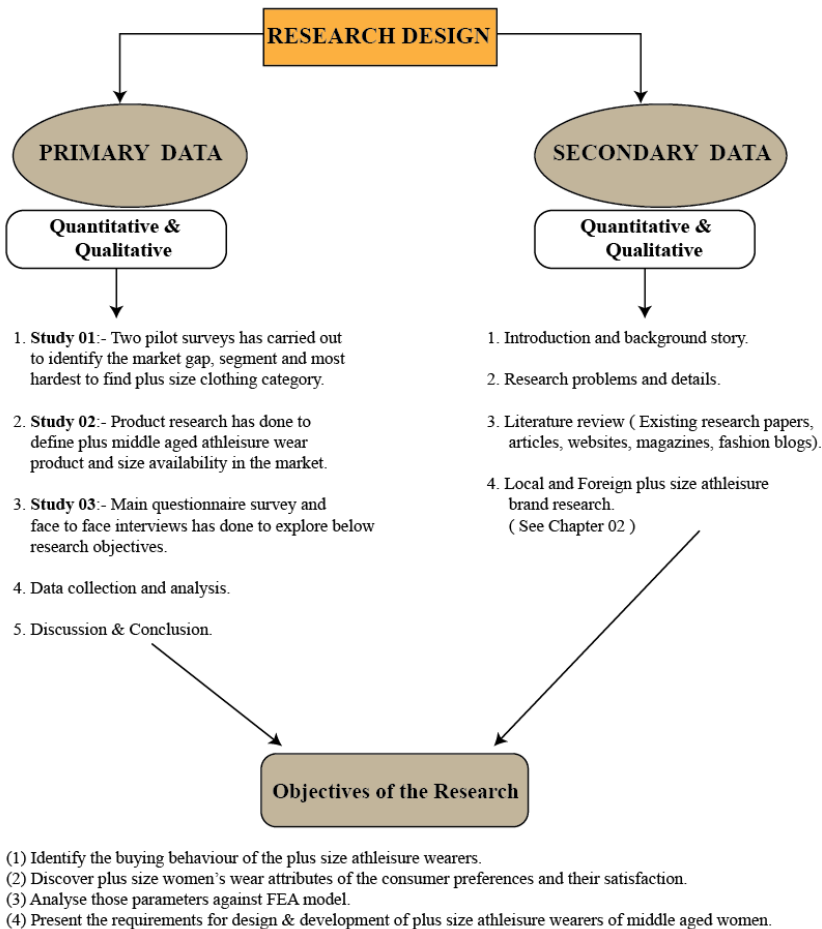
Introduction

This chapter discuss the process of the study. The reasons and objectives of the study has been covered my different data collection methods and information throughout the process.

Research Design

The research design (see figure 3-1) was illustrated the overall design methodology.

For this research it was essential to do both quantitative and qualitative research.



Primary Research

Two pilot surveys and the main survey

The primary research has started with two pilot surveys that used to construct the main survey and a product research.

Study 01 – Pilot survey 01 & Pilot survey 02

Two pilot surveys have carried out to highlight 'there was no existing evidence' to present the research. Pilot survey 01 and 02 have done to identify the Market Gap. 150 feedbacks got through random online survey filled by Colombo inner and outer women. It was carried out to get an idea

about the basic scope of the market segment and product category. (Check chap: 01).

Study 02 – Product research shop visit

Product research has been carried out throughout the 08 months, targeting plus size brands / outlets to identify plus size middle aged women athleisure garment availability and size ranges. (Check table 2-3).

Study 03 – Main survey

The 'cross-sectional survey' is concerned with sampling, questionnaire

design, questionnaire administration and data analysis (Sukamolson, n.d.).

Sample Characteristics: - Quantitative survey has been carried out to collect data by targeting Sri Lankan middle aged working, urban living women from age 30 to 45. "For this market gap identification research it is important to collect numerical data which can be analysed mathematically like count or percentage etc" (Greetham, 2009).

Sample Selection: - 'Random sample'. The research has been carried out at the jogging tracks, streets and gyms to interview people randomly to make sure the data is more generalizable and manageable, 80 feedbacks.

Pilot survey objectives.

Design the questionnaire: - To construct the main questionnaire, it was essential to run two pilot surveys. Main questionnaire had made according to FEA Model. These surveys contain of categorical, numerical, multiple choices, multiple responses, like scale and ranking questions.

Questionnaire administration: - With feedbacks, Semi – structured, Face-to-face interviews have been carried out for random ladies. Questions were scheduled questions.

Data analysis: - Has done after summarizing data using graphs, pie charts, bar charts and tables.

| Task | Question no | Objectives covered |
|-------------------------|-------------|--|
| Main survey | 01 – 08 | Consumer's lifestyle and personal views. |
| | 09 - 14 | Objective 01:- Identify the buying behavior of the PS athleisure wearers. |
| | 15 - 30 | Objective 02:- Discover PS women's wear attributes of the consumer preference and their satisfaction. |
| Face-to-face Interviews | | Why they are trying to active? Why did they come for jogging or gym rather than going for a sport? What are the NCD they are suffering from? |
| Task | Question no | Objectives covered |
| Main survey | 01 – 08 | Consumer's lifestyle and personal views. |
| | 09 - 14 | Objective 01:- Identify the buying behavior of the PS athleisure wearers. |
| | 15 - 30 | Objective 02:- Discover PS women's wear attributes of the consumer preference and their satisfaction. |
| Face-to-face Interviews | | Why they are trying to active? Why did they come for jogging or gym rather than going for a sport? What are the NCD they are suffering from? |

| Task | Question No | Objectives Covered |
|--|-------------|---|
| Pilot survey 01 Sri Lankan plus size fashion market. | 01 – 07 | Initial data collection (to identify which age category is demanding athleisure wear and BMI rate of that age category to get an idea about their health level) based on Objective 01 and 02. |
| Pilot survey 02 Sri Lankan plus size fashion outlook. | 01 – 10 | Support data collection for Objective 01 and 02. |

Data Analysis

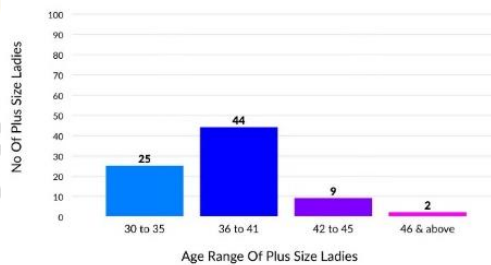
The review of the existing market of plus size women of Athleisure wear

The current market research has carried out through Sri Lankan shops to check the product availability in PS ranges. (See Chapter 02)

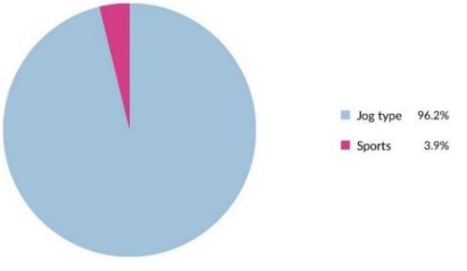
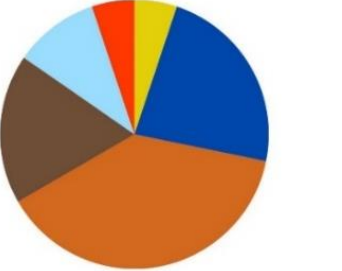
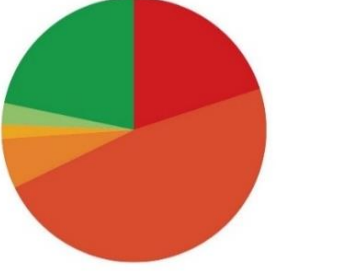
This chapter is the results of the main questionnaire survey. Manual questionnaire has been targeted 80 plus size women. Since 2 ladies are out of the age range, below analysis has done with 78 respondents according to the FEA conceptual framework.

ANALYSIS

Consumer Exploration

| Topic | Analysis | | | | | | | | | | | | | | | | | | |
|-------------------------|---|-----------|-------------|---------|---------|----|--------|---------|----|-----|---------|---|--------|--------------|---|------|-------|----|------|
| Common middle age range | <p style="text-align: center;">Age range of participants</p>  <table border="1"> <thead> <tr> <th>Age range</th> <th>No of woman</th> <th>% Value</th> </tr> </thead> <tbody> <tr> <td>30 – 35</td> <td>25</td> <td>31.25%</td> </tr> <tr> <td>36 – 41</td> <td>44</td> <td>55%</td> </tr> <tr> <td>42 – 45</td> <td>9</td> <td>11.25%</td> </tr> <tr> <td>46 and above</td> <td>2</td> <td>2.5%</td> </tr> <tr> <td>Total</td> <td>80</td> <td>100%</td> </tr> </tbody> </table> <p>55% ladies are in age range 36 – 41 which is the most common middle aged plus size women range.</p> | Age range | No of woman | % Value | 30 – 35 | 25 | 31.25% | 36 – 41 | 44 | 55% | 42 – 45 | 9 | 11.25% | 46 and above | 2 | 2.5% | Total | 80 | 100% |
| Age range | No of woman | % Value | | | | | | | | | | | | | | | | | |
| 30 – 35 | 25 | 31.25% | | | | | | | | | | | | | | | | | |
| 36 – 41 | 44 | 55% | | | | | | | | | | | | | | | | | |
| 42 – 45 | 9 | 11.25% | | | | | | | | | | | | | | | | | |
| 46 and above | 2 | 2.5% | | | | | | | | | | | | | | | | | |
| Total | 80 | 100% | | | | | | | | | | | | | | | | | |

| <p>Composition by occupation</p> | <p>Job status</p> <p>96.2% ladies are working women. Only 3.9% are housewives.</p> | | | | | | | | | | |
|----------------------------------|--|-----|----------|-----------------|-------------|---------------|---------|-------------|------------|------------|-------|
| <p>BMI rate</p> | <p>BMI Classification</p> <table border="1"> <thead> <tr> <th>BMI</th> <th>Category</th> </tr> </thead> <tbody> <tr> <td>Lower than 18.5</td> <td>Underweight</td> </tr> <tr> <td>18.5 up to 25</td> <td>Optimal</td> </tr> <tr> <td>25 up to 30</td> <td>Overweight</td> </tr> <tr> <td>30 upwards</td> <td>Obese</td> </tr> </tbody> </table> $\text{BMI} = \frac{(\text{weight in kilograms})}{\text{height in meters}^2}$ <p>BMI rates of the plus size ladies</p> <p>82.1% are in 'Obese' range which is the BMI rate over 30. 16.7% are in overweight stage.</p> | BMI | Category | Lower than 18.5 | Underweight | 18.5 up to 25 | Optimal | 25 up to 30 | Overweight | 30 upwards | Obese |
| BMI | Category | | | | | | | | | | |
| Lower than 18.5 | Underweight | | | | | | | | | | |
| 18.5 up to 25 | Optimal | | | | | | | | | | |
| 25 up to 30 | Overweight | | | | | | | | | | |
| 30 upwards | Obese | | | | | | | | | | |
| <p>Living area</p> | <p>Living location</p> <p>85.9% are living in Colombo while 14.1% are living out of Colombo.</p> | | | | | | | | | | |

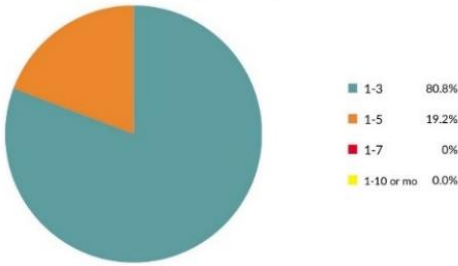
| | |
|---|--|
| <p>Willing to do an activity for HCL</p> | <p>All 100% (78) ladies are willing to do an activity to maintain a healthy lifestyle.</p> |
| <p>Activity Selection</p> | <p style="text-align: center;">Activity selection</p>  <p>96.2% ladies like to do jogging, walking, running, cycling, yoga, salsa, zumba, swimming type activities while 3.9% ladies like sports like volleyball, tennis, and badminton, and table tennis, hockey.</p> |
| <p>Body sizes according to UK sizes</p> | <p style="text-align: center;">Body size according to UK size range</p>  <p>UK size 18 is the most common plus size in Sri Lankan market with 38.5% (30) ladies.</p> |
| <p>Composition of the sample by non-communicable diseases (NCD)</p> | <p style="text-align: center;">Non communicable diseases</p>  <p>Most of the middle aged women thinking that at the beginning of their 30's they are starting the risk of getting non-communicable diseases (NCD). 50% of the ladies are having diabetes. 20% of them are having blood pressure. 21.8% are having cholesterol. These are the major reasons that drives plus size women to the jogging track.</p> |

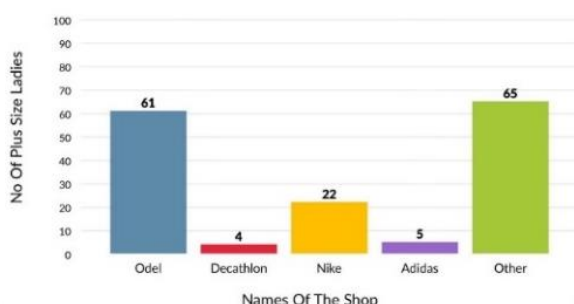
| | |
|--|---|
| Barriers women have that stop them being active? | <p>69.0% women are busy with office work, kids and household work.</p> <p>28.6% women are busy with too much office work.</p> <p>Above two reasons are the major boundaries that plus size middle aged women are facing in the current society.</p> |
|--|---|

Buying Behavior

Table 4 2 Buying behavior

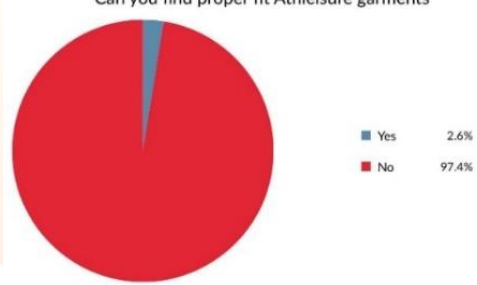
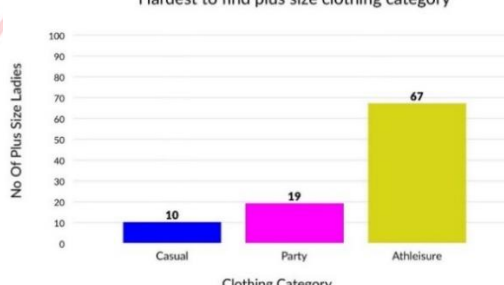
| Topic | Analysis | | | | | | | | | | | | | | | | | | |
|--|---|-------------|----|---------|------------------|----|--------|-----------------|----|--------|------------|----|--------|---------------|----|--------|----------------|----|--------|
| Main concerns when plus size middle aged women buy athleisure wear | <p style="text-align: center;">Main two concerns when purchasing Athleisure garments</p> <table border="1"> <thead> <tr> <th>Description</th> <th>no</th> <th>% value</th> </tr> </thead> <tbody> <tr> <td>Price worthiness</td> <td>30</td> <td>38.46%</td> </tr> <tr> <td>Product quality</td> <td>48</td> <td>61.54%</td> </tr> <tr> <td>Durability</td> <td>30</td> <td>38.46%</td> </tr> <tr> <td>Functionality</td> <td>46</td> <td>58.97%</td> </tr> <tr> <td>Fashionability</td> <td>49</td> <td>62.82%</td> </tr> </tbody> </table> <p>62.82% fashionability. 61.54% product quality. 58.97% functionality. Above main 03 concerns are the most important factors when catering to plus size middle aged athleisure market.</p> | Description | no | % value | Price worthiness | 30 | 38.46% | Product quality | 48 | 61.54% | Durability | 30 | 38.46% | Functionality | 46 | 58.97% | Fashionability | 49 | 62.82% |
| Description | no | % value | | | | | | | | | | | | | | | | | |
| Price worthiness | 30 | 38.46% | | | | | | | | | | | | | | | | | |
| Product quality | 48 | 61.54% | | | | | | | | | | | | | | | | | |
| Durability | 30 | 38.46% | | | | | | | | | | | | | | | | | |
| Functionality | 46 | 58.97% | | | | | | | | | | | | | | | | | |
| Fashionability | 49 | 62.82% | | | | | | | | | | | | | | | | | |

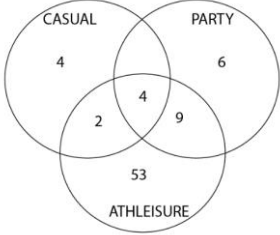
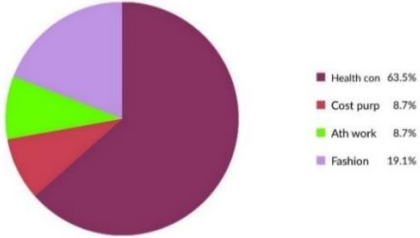
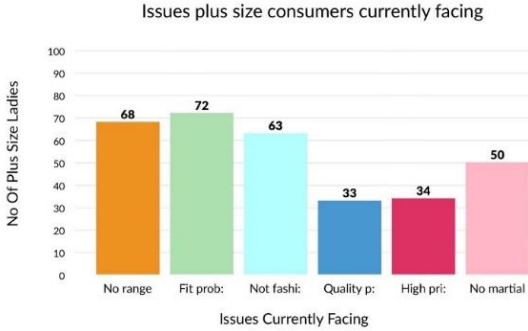
| <p>How many garments buy at one time?</p> | <p style="text-align: center;">No of Athleisure garments purchase at one time</p>  <p>80.8% women buy 1 to 3. 19.2% women buy 1 to 5. No one buy more than 5 garments at one time.</p> | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---------|--|-------------------|----|---------|------------|---|----|------------|----|--------|------------|----|--------|------------|----|-------|--------------------|---|-------|-----------------------|---|-------|
| <p>How much they are willing to pay for an athleisure top?</p> | <table border="1"> <thead> <tr> <th>Price range (Rs.)</th> <th>No</th> <th>% Value</th> </tr> </thead> <tbody> <tr> <td>500 – 1000</td> <td>0</td> <td>0%</td> </tr> <tr> <td>500 – 2000</td> <td>48</td> <td>61.54%</td> </tr> <tr> <td>500 – 3000</td> <td>22</td> <td>28.21%</td> </tr> <tr> <td>500 – 4000</td> <td>3</td> <td>3.85%</td> </tr> <tr> <td>500 – 5000 or more</td> <td>3</td> <td>3.85%</td> </tr> <tr> <td>500 - 10,000 or below</td> <td>2</td> <td>2.56%</td> </tr> </tbody> </table> <p>61.54% women are willing to pay Rs.500 – Rs.2000, which is the ideal price range for an athleisure top.</p> | | | Price range (Rs.) | No | % Value | 500 – 1000 | 0 | 0% | 500 – 2000 | 48 | 61.54% | 500 – 3000 | 22 | 28.21% | 500 – 4000 | 3 | 3.85% | 500 – 5000 or more | 3 | 3.85% | 500 - 10,000 or below | 2 | 2.56% |
| Price range (Rs.) | No | % Value | | | | | | | | | | | | | | | | | | | | | | |
| 500 – 1000 | 0 | 0% | | | | | | | | | | | | | | | | | | | | | | |
| 500 – 2000 | 48 | 61.54% | | | | | | | | | | | | | | | | | | | | | | |
| 500 – 3000 | 22 | 28.21% | | | | | | | | | | | | | | | | | | | | | | |
| 500 – 4000 | 3 | 3.85% | | | | | | | | | | | | | | | | | | | | | | |
| 500 – 5000 or more | 3 | 3.85% | | | | | | | | | | | | | | | | | | | | | | |
| 500 - 10,000 or below | 2 | 2.56% | | | | | | | | | | | | | | | | | | | | | | |
| <p>How much they are willing to pay for an athleisure bottom?</p> | <table border="1"> <thead> <tr> <th>Price range (Rs.)</th> <th>No</th> <th>% Value</th> </tr> </thead> <tbody> <tr> <td>500 – 1000</td> <td>0</td> <td>0%</td> </tr> <tr> <td>500 – 2000</td> <td>6</td> <td>7.7%</td> </tr> <tr> <td>500 – 3000</td> <td>47</td> <td>60.26%</td> </tr> <tr> <td>500 – 4000</td> <td>17</td> <td>21.8%</td> </tr> <tr> <td>500 – 5000 or more</td> <td>6</td> <td>7.7%</td> </tr> <tr> <td>500 - 10,000 or below</td> <td>2</td> <td>2.56%</td> </tr> </tbody> </table> <p>60.62% women are ready to pay Rs.500 – Rs.3000, which is the idea price range for an athleisure bottom.</p> | | | Price range (Rs.) | No | % Value | 500 – 1000 | 0 | 0% | 500 – 2000 | 6 | 7.7% | 500 – 3000 | 47 | 60.26% | 500 – 4000 | 17 | 21.8% | 500 – 5000 or more | 6 | 7.7% | 500 - 10,000 or below | 2 | 2.56% |
| Price range (Rs.) | No | % Value | | | | | | | | | | | | | | | | | | | | | | |
| 500 – 1000 | 0 | 0% | | | | | | | | | | | | | | | | | | | | | | |
| 500 – 2000 | 6 | 7.7% | | | | | | | | | | | | | | | | | | | | | | |
| 500 – 3000 | 47 | 60.26% | | | | | | | | | | | | | | | | | | | | | | |
| 500 – 4000 | 17 | 21.8% | | | | | | | | | | | | | | | | | | | | | | |
| 500 – 5000 or more | 6 | 7.7% | | | | | | | | | | | | | | | | | | | | | | |
| 500 - 10,000 or below | 2 | 2.56% | | | | | | | | | | | | | | | | | | | | | | |

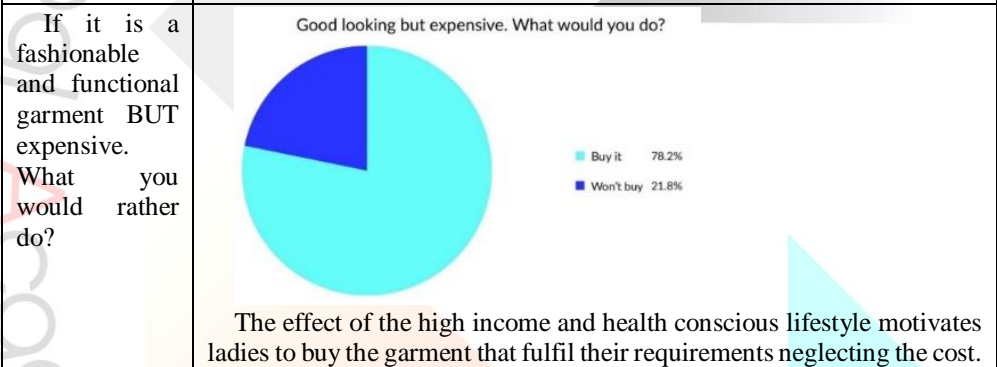
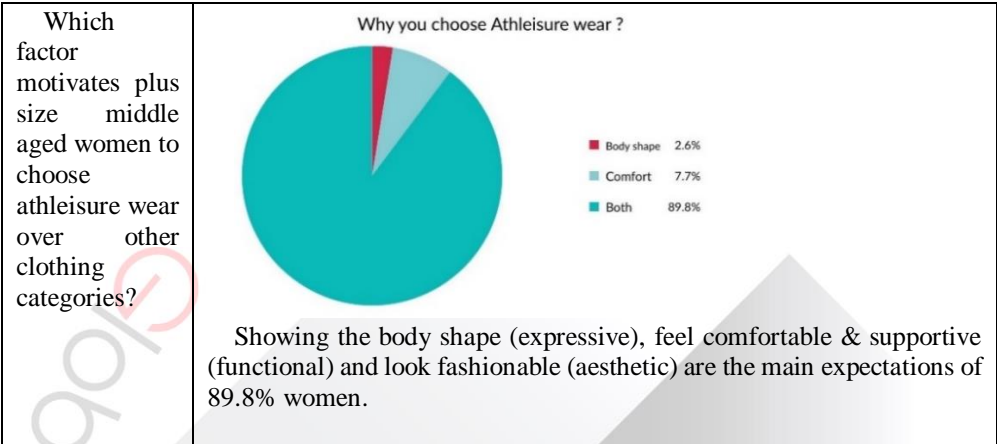
| <p>Shops that offer plus size athleisure</p> | <p style="text-align: center;">Shops where plus size consumers buy Athleisure</p>  <table border="1"> <thead> <tr> <th>Names Of The Shop</th> <th>No Of Plus Size Ladies</th> </tr> </thead> <tbody> <tr> <td>Odel</td> <td>61</td> </tr> <tr> <td>Decathlon</td> <td>4</td> </tr> <tr> <td>Nike</td> <td>22</td> </tr> <tr> <td>Adidas</td> <td>5</td> </tr> <tr> <td>Other</td> <td>65</td> </tr> </tbody> </table> <p>83.33% women going for ‘other shops’ rather than Decathlon, Nike and Adidas. 78.21% women are going to ODEL which can be recognised as the most plus size women visited outlet.</p> | Names Of The Shop | No Of Plus Size Ladies | Odel | 61 | Decathlon | 4 | Nike | 22 | Adidas | 5 | Other | 65 |
|--|---|-------------------|------------------------|------|----|-----------|---|------|----|--------|---|-------|----|
| Names Of The Shop | No Of Plus Size Ladies | | | | | | | | | | | | |
| Odel | 61 | | | | | | | | | | | | |
| Decathlon | 4 | | | | | | | | | | | | |
| Nike | 22 | | | | | | | | | | | | |
| Adidas | 5 | | | | | | | | | | | | |
| Other | 65 | | | | | | | | | | | | |

Expanding consumer issues

Table **Error! No text of specified style in document.**-1 Expanding consumer issues

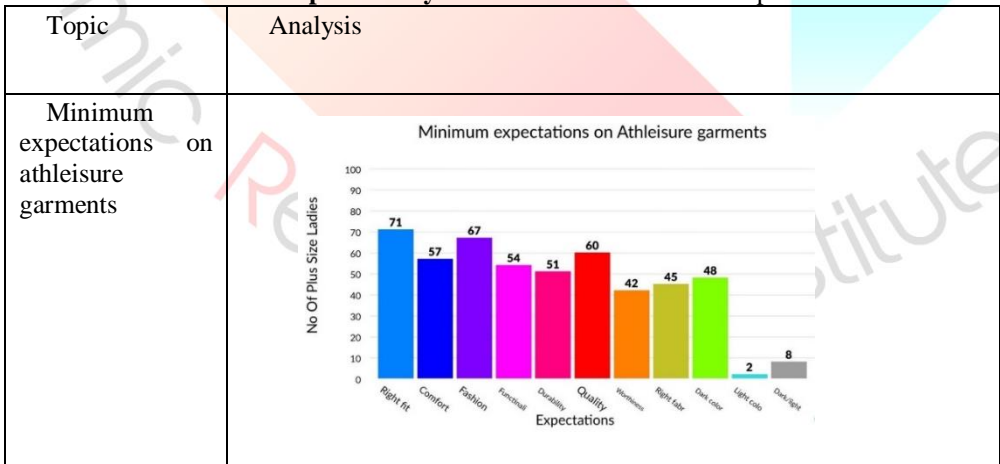
| Topic | Analysis | | | | | | | | |
|---|--|-------------------|------------------------|--------|------|-------|-------|------------|----|
| <p>Can you find proper fit athleisure wear in the market?</p> | <p style="text-align: center;">Can you find proper fit Athleisure garments</p>  <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>2.6%</td> </tr> <tr> <td>No</td> <td>97.4%</td> </tr> </tbody> </table> <p>97.4% women said ‘No’ and that proves the gap in plus size middle aged athleisure market.</p> | Response | Percentage | Yes | 2.6% | No | 97.4% | | |
| Response | Percentage | | | | | | | | |
| Yes | 2.6% | | | | | | | | |
| No | 97.4% | | | | | | | | |
| <p>Most hardest to find PS clothing category</p> | <p style="text-align: center;">Hardest to find plus size clothing category</p>  <table border="1"> <thead> <tr> <th>Clothing Category</th> <th>No Of Plus Size Ladies</th> </tr> </thead> <tbody> <tr> <td>Casual</td> <td>10</td> </tr> <tr> <td>Party</td> <td>19</td> </tr> <tr> <td>Athleisure</td> <td>67</td> </tr> </tbody> </table> | Clothing Category | No Of Plus Size Ladies | Casual | 10 | Party | 19 | Athleisure | 67 |
| Clothing Category | No Of Plus Size Ladies | | | | | | | | |
| Casual | 10 | | | | | | | | |
| Party | 19 | | | | | | | | |
| Athleisure | 67 | | | | | | | | |

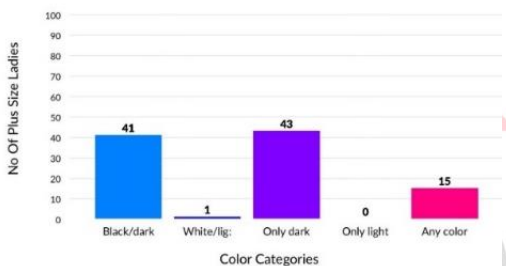
| | |
|---|---|
| |  <p>‘Athleisure’ is the hardest to find plus size clothing category with 85.9% respondents.</p> |
| <p>The need of athleisure for plus size of middle aged women.</p> | <p>Reasons for the demand of plus size athleisure garments</p>  <p>According to above chart details, 63.5% ladies are requesting athleisure wear because they are health conscious which is the main concern of this research. 19.1% ladies requesting it for fashionable and stylish lifestyle.</p> |
| <p>What are the Main problems plus size middle aged women are currently facing in the industry?</p> | <p>Issues plus size consumers currently facing</p>  <p>‘Fit problems’ is the main problem - 92.31%. ‘Not having enough plus size range’ - 87.18%. ‘Not fashionable enough’ - 80.77%. Face-to-face discussions have highlighted 2 main key problems. Plus size women love to wear both Functional + Fashionable athleisure wear garments which are currently unavailable in the market. In the current market, all most all of the products are in low quality and high price which cannot fulfil consumer requirements and also breaking consumer trust about the garment quality.</p> |

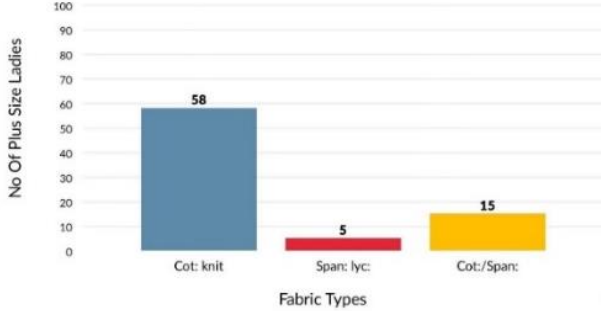


Consumer Preferences

Table **Error! No text of specified style in document.**-2 Consumer preferences

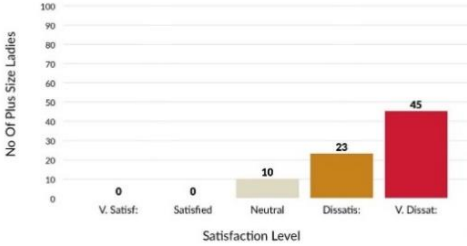


| | <table border="1"> <thead> <tr> <th>Expectation</th> <th>No</th> <th>% Value</th> </tr> </thead> <tbody> <tr> <td>Correct fit</td> <td>71</td> <td>91.03%</td> </tr> <tr> <td>Comfortability</td> <td>57</td> <td>73.08%</td> </tr> <tr> <td>Fashionability</td> <td>67</td> <td>85.90%</td> </tr> <tr> <td>Functionality</td> <td>54</td> <td>69.23%</td> </tr> <tr> <td>Durability</td> <td>51</td> <td>65.38%</td> </tr> <tr> <td>Quality</td> <td>60</td> <td>76.92%</td> </tr> <tr> <td>Worth to the price</td> <td>42</td> <td>53.85%</td> </tr> <tr> <td>Correct fabrication</td> <td>45</td> <td>57.69%</td> </tr> <tr> <td>Dark colors</td> <td>48</td> <td>61.54%</td> </tr> <tr> <td>Light colors</td> <td>2</td> <td>2.56%</td> </tr> <tr> <td>Both dark & light shades</td> <td>8</td> <td>10.26%</td> </tr> </tbody> </table> <p> Fashionability – 85.90% Quality – 76.92% Comfortability – 73.08% Functionality – 69.23% </p> | Expectation | No | % Value | Correct fit | 71 | 91.03% | Comfortability | 57 | 73.08% | Fashionability | 67 | 85.90% | Functionality | 54 | 69.23% | Durability | 51 | 65.38% | Quality | 60 | 76.92% | Worth to the price | 42 | 53.85% | Correct fabrication | 45 | 57.69% | Dark colors | 48 | 61.54% | Light colors | 2 | 2.56% | Both dark & light shades | 8 | 10.26% | Correct fit – 91.03% |
|---|---|-------------|----------------|-------------------------|-------------|----|-------------|----------------|-----------|--------|----------------|----|-----------|---------------|----|--------|------------|----|--------|---------|----|--------|--------------------|----|--------|---------------------|----|--------|-------------|----|--------|--------------|---|-------|--------------------------|---|--------|----------------------|
| Expectation | No | % Value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Correct fit | 71 | 91.03% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Comfortability | 57 | 73.08% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fashionability | 67 | 85.90% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Functionality | 54 | 69.23% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Durability | 51 | 65.38% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Quality | 60 | 76.92% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Worth to the price | 42 | 53.85% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Correct fabrication | 45 | 57.69% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dark colors | 48 | 61.54% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Light colors | 2 | 2.56% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Both dark & light shades | 8 | 10.26% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Choose between functional aesthetic? vs | 73.1% women requesting a functional athleisure. 26.9% women requesting aesthetic garments. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Color preferences | <p style="text-align: center;">Color preferences</p>  <table border="1"> <caption>Color Preferences Data</caption> <thead> <tr> <th>Color Category</th> <th>No. of Plus Size Ladies</th> </tr> </thead> <tbody> <tr> <td>Black/dark</td> <td>41</td> </tr> <tr> <td>White/light</td> <td>1</td> </tr> <tr> <td>Only dark</td> <td>43</td> </tr> <tr> <td>Only light</td> <td>0</td> </tr> <tr> <td>Any color</td> <td>15</td> </tr> </tbody> </table> <p> Any dark color only – 55.13% Black and darker shades – 52.56% </p> | | Color Category | No. of Plus Size Ladies | Black/dark | 41 | White/light | 1 | Only dark | 43 | Only light | 0 | Any color | 15 | | | | | | | | | | | | | | | | | | | | | | | | |
| Color Category | No. of Plus Size Ladies | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Black/dark | 41 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| White/light | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Only dark | 43 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Only light | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Any color | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | |
|---|---|---|--|--|
| <p>Fabric preferences</p> | <p style="text-align: center;">Fabric preferences</p>  <p>Cotton knitted fabric only – 74. 36% Spandex, Lycra knitted only – 6. 41% Cotton or synthetic any fabric – 19. 23%</p> | | | |
| <p>Style preferences according to FEA consumer needs model.</p> | <p>Style description</p> <p>Plain color</p> <p>Body mapping</p> <p>Color blocking</p> <p>Fully bonded</p> <p>Seamless knitted</p> <p>Laser cut</p> <p>Printed</p> <p>Camó</p> <p>Rhinestones</p> <p>Ombre</p> <p>Fabric and mesh bonded</p> | <p>No</p> <p>71</p> <p>06</p> <p>63</p> <p>09</p> <p>06</p> <p>46</p> <p>60</p> <p>35</p> <p>16</p> <p>46</p> <p>54</p> | <p>% Value</p> <p>91.03%</p> <p>7.70%</p> <p>80.77%</p> <p>11.54%</p> <p>7.69%</p> <p>58.97%</p> <p>76.92%</p> <p>44.87%</p> <p>20.51%</p> <p>58.97%</p> <p>69.23%</p> | <p>Reason according to FEA consumer needs</p> <p>Expressive</p> <p>Functional</p> <p>Aesthetic</p> <p>Functional</p> <p>Functional</p> <p>Aesthetic</p> <p>Aesthetic</p> <p>Aesthetic & Expressive</p> <p>Aesthetic</p> <p>Aesthetic</p> <p>Functional & Aesthetic</p> <p><i>Plus size women style choices has highlighted the need of functional and aesthetic mixed athleisure garment requirement that can express who they are to the world.</i></p> |

Consumer Satisfaction

Table **Error! No text of specified style in document.**-3 Consumer satisfaction

| Topic | Analysis | | | | | | | | | | | | |
|--------------------|--|--------------------|------------------------|------------|---|-----------|---|---------|----|-----------|----|------------|----|
| The Satisfaction | <p>Satisfaction level of available plus size Athleisure products</p>  <table border="1"> <thead> <tr> <th>Satisfaction Level</th> <th>No Of Plus Size Ladies</th> </tr> </thead> <tbody> <tr> <td>V. Satisf.</td> <td>0</td> </tr> <tr> <td>Satisfied</td> <td>0</td> </tr> <tr> <td>Neutral</td> <td>10</td> </tr> <tr> <td>Dissatis.</td> <td>23</td> </tr> <tr> <td>V. Dissat.</td> <td>45</td> </tr> </tbody> </table> <ul style="list-style-type: none"> 57.7% women are very dissatisfied. It highlights the market issue / need of plus size middle aged athleisure wear market. | Satisfaction Level | No Of Plus Size Ladies | V. Satisf. | 0 | Satisfied | 0 | Neutral | 10 | Dissatis. | 23 | V. Dissat. | 45 |
| Satisfaction Level | No Of Plus Size Ladies | | | | | | | | | | | | |
| V. Satisf. | 0 | | | | | | | | | | | | |
| Satisfied | 0 | | | | | | | | | | | | |
| Neutral | 10 | | | | | | | | | | | | |
| Dissatis. | 23 | | | | | | | | | | | | |
| V. Dissat. | 45 | | | | | | | | | | | | |

Requirement Analysis for the plus size athleisure wear product design & development

This section discuss what are the target market segment's product attributes requirements according to FEA model.

Table **Error! No text of specified style in document.**-4production requirement analysis according to FEA model

| Functional | Expressive | Aesthetic |
|--|--|--|
| <ol style="list-style-type: none"> 1. Not enough size range for enough extend. 2. Fir Problems. 3. Quality issues. 4. Not Suitable fabrics for plus size women. 5. Need for functional garments. 6. Durability. 7. Quality need. 8. health conscious lifestyle 9. Need of correct fabric. 10. Comfortability. 11. 74.36% cotton knit fabric demand. 12. 19.23% cotton or synthetic fabric demand. 13. feel comfortable and help body functions while looking fashionable. | <ol style="list-style-type: none"> 1. Look good with the outfit to have self-esteem. 2. Fashionability. 3. Color selection shows personality. 4. Shows the body shape give confidence and give the massage that the wearer is active person. | <ol style="list-style-type: none"> 1. Problem is not fashionable / old fashion / basic silhouettes. 2. Not suitable colors and styles for PS middle aged women. 3. Fashionability need. 4. Dark colors demand / dark shades. 5. Fashionable + functional need. 6. 41% dark shades, 43% any dark color only, 15% any color. |

DISCUSSION

Introduction

This chapter consists of the discussion, according to research analysis findings.

Research findings

Research has confirmed the plus size athleisure wear market gap created by the working middle aged women due to health conscious lifestyle.

Discussion

Main survey and face-to-face interviews have carried out to explore more data about the initial data collected from two pilot surveys and market research. Consumer exploration has identified that 55% out of ladies are belongs to age 30-41 which can consider as the most common middle women age range. Data has showed 96.2% of ladies are working women and out of that sample, 82.1% of ladies are in obese level according to BMI calculations which is having high risk to get non-communicable diseases. All most all women are willing to do an activity to live healthy life and out of that sample 96.2% of ladies prefer jogging, yoga and cycling type activity to maintain their lifestyle. Furthermore, results has showed UK size 18 is the most common plus size. 47.8% of ladies are having diabetes that can consider as most common NCD and also blood pressure and cholesterol are some major health issues. The research has highlighted that fashionability (62.82%), product quality (61.54%) and functionality (58.97%) are the main 03 concerns when plus size women purchasing athleisure garments. 80.8% of ladies would buy 1-3 garments at one time from most commonly from ODEL and 'other shops' category because high end brands do not cater to plus size women. 97.4% of the sample has responded as they cannot find proper fitting plus size athleisure garments in the

market that can take as a major loop hole in the market as athleisure is the most hardest to find clothing category. 63.5% of ladies have mentioned health consciousness as the main reason to their athleisure wear demand but not only that but also being an acceptable garment category at work places, fashionable lifestyle and cost effective lifestyle are some other reasons. Fit problems, not having enough PS range and not fashionable are the 03 main issues PS ladies are facing. Face-to-face interviews have highlighted target market segment like to wear both functional and fashionable athleisure wear and the other major problem is available products are low quality and high priced. 89.8% of ladies choose athleisure wear over other clothing category because they can fulfil their functional, expressive and aesthetic needs in one garment. Correct fitting (91.03%), fashionability (85.90%), quality (76.92%), comfortability (73.08%) are the minimum expectations of a garment. All most all of the ladies like to wear black or darker shades with cotton knitted fabrics.

Product design and development analysis has done according to FEA model which is exploring consumer needs (showing the body shape (expressive), feel comfortable & supportive (functional) and look fashionable (aesthetic) are the main expectations of this market segment) that can be useful for future researchers, fashion business people etc.

Recommendations for future studies

- Compression garments for plus size women to increase muscle functions.
- Athleisure demand in other age categories like teenagers, elder women, pregnant women etc.
- Other plus size clothing category demand such as casual and party wear.

CONCLUSION

Summary

World's Plus Size fashion market is getting larger due to constant growth of positive mindset of plus size women. Even though they are above size 12 they are conscious about health. The study focus on two subjects;

1. Explore plus size athleisure market gap

The research had found out there is a market gap for plus size athleisure category created by the middle aged women (age 30 – 45) because of health consciousness (63.5%).

2. Present the requirement analysis for such product design & development

Research findings has revealed that middle aged working women from age 30 - 45 have created a demand for plus size athleisure wear because athleisure is the most hardest to find plus size clothing category in the market. Since most of the high end brands do not cater to plus size range because of the more time consumption and cost issues 97.4% ladies are not satisfied with plus size athleisure market. They are willing to do jogging, cycling and yoga type activities even though 69% of them are busy with office work, kids and household work because 85.9% ladies are in the obese level in BMI rate. 50% of ladies are having diabetes. 4/5 of the sample buy 1 to 3 garments at one time. Fear of getting NCD is their major motivation to jogging track but not only that but also being an accepted garment category at work places, fashionability and cost effectiveness are some of the other motivations. Fit problem is the main problem while not having size range to enough extend and not fashionable enough garments are the top 3 issues middle aged PS women are currently facing. Women like 'functional, fashionable and quality athleisure wear in black or any dark color with cotton knitted fabrics' is the brief idea

about the consumer requirement in this market segment.

This research has investigated a market segment with a market gap and have presented the requirements of the product they want according to FEA consumer needs model and according to that, plus size middle aged women's demand for athleisure wear is to show the body shape (expressive), feel comfortable & support (functional) and look fashionable (aesthetic) are the main expectations of 89.8% women.

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