## Exploration of design, technology and key market dynamics related to the Winter Olympic Down Jackets

## Down Jackets Trends

Use of several kind of down jackets during the Winter Olympics has triggered wider interest of global population towards it. Till February 6 2022, the term "down jacket for the opening ceremony" received 450 million Google searches. Distinct countries have used wider technology and designs to create their own down jackets for opening ceremony of Winter Olympics. Considering that trends, the study aims to explore the design, technology, market dynamics behind the down jackets designed for Winter Olympics.

#### **Key Objectives**

- To evaluation examine the main types of winter Olympics clothing
- To evaluation examine Winter Olympic delegate down jackets market, prices and impact on brand
- To evaluation examine investigate the use of Science and Technology in Winter Olympic Down Jackets



Fig 1: Down Jacket for Winter Olympics Source: Copeland, 2022

## Research Method

The key objective of the study accomplished by conducting a qualitative research using secondary research approach to collect data from existing sources. Referring the research objectives, the interpretivism research philosophy and inductive data analysis approach has been applied. The key data for the study has been sourced from a variety of publicly accessible databases including Google Scholar, the internet, and the University library.

The secondary data used in this study because that is cost-effective and easy to access in terms of data collection (Creswell and Creswell, 2017). For the search of the articles, the key search words used were "Winter Olympic," "delegation down jacket," and "down jacket." To make sure that all the study data is comprehensive and relevant to Winter Olympic down jacket, only those articles selected and reviewed which were published between 2019 and 2022 and available in English.

That collected data has been analysed using the thematic analysis approach. In thematic data analysis, six major steps taken – 1) familiarizing with the collected data; 2) developing initial codes; 3) collating codes with supporting data; 4) grouping codes into major themes; 5) reviewing and revising themes; and 6) writing the narrative to respond to the research question (Clarke, Braun and Hayfield, 2015).

## Type of Thermal Wear

Lightweight insulation is high in demand and a key ingredient of the down jackets. The key material of down jackets are merino wool and Smartwool which offers greater thermal effect Women thermal wear are normally designed using Smartwool 150 base layer and men's thermal wear is designed using Merino 150 base layer insulation. Some of best thermal wear brands, their material, product type and target customers of 2020/2021 are listed below:

Thermal underwear brand	Who is it for	Thermal items	Materials available
Helly Hansen	Women, Men, Kids	Tops/bottoms	Merino Wool, Polypropylene, polyester
Terramar	Women, Men, Kids	Tops/Bottoms	Silk, Wool, Polyester
Cuddle Duds	Women, Men , Kids	Tops/bottoms	Polyester, Nylon, Spandex
Minus33	Women, Men	Tops/Bottoms	Merino Wool
Icebreaker	Men, Women, Kids	Tops/Bottoms	Merino Wool
DuoFold	Women, Men	Tops/Bottoms	Polyester, Spandex

Fig 2: Best thermal wear 2020/2021 roundup Source: (Correale, 2018)

## Olympic down jacket market dynamics

Down coats worn by sportsmen are in high demand all around the globe, and main role is played by social media. Where "opening ceremony down jacket," "down jacket show," "Canadian team jacket," and "Finnish down jacket" were the top trending topics. A well-priced down jacket is popular among millennial customers, who are increasingly attracted to fashion with practicality. Top 3 producers of down jacket iare – Anta (China), Lululemon Athletica (Canada) and Finland (ICEPEAK)

Market is growing with lower-priced and higher-priced down jackets. As per CBNData the Chinese winter jacket market will expanded to \$20 billion (138.2 billion yuan), from its current level of nearly \$10 billion (Wurzburger, 2022). The pricing level of down jacket products around 4 main countries are shown in below graph.

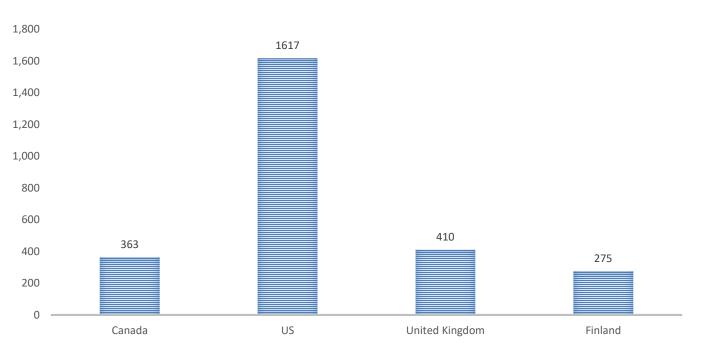


Fig 3: Down Jacket Prices (in Pound)
Source: LaiTimes, 2022

## Technology in Winter Olympic Down Jackets

High-tech features and intelligent designs are key parts of the Winter Olympic down jackets. Best in class down jackets shown in opening ceremony also showcases country's autonomous innovation capabilities. These down jackets are often built by layered insulation which are filled in partitioned spaces of the outer layer of jacket. The popular form of down jackets uses merino wool and Smartwool, with applied design methods like Intraknit terry loops, and mesh design, allowing better ventilation and insulations. Base design illustrations are shown below.

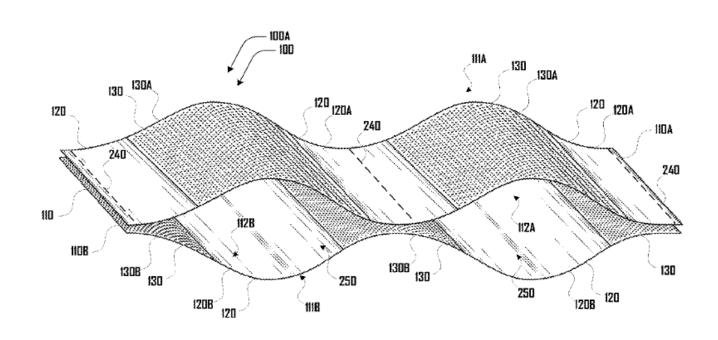
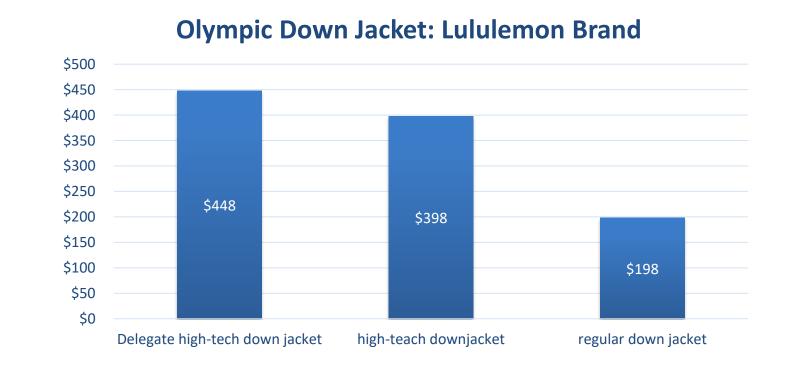




Fig 4: Base design of down jacket structure Source: Ridley et al., 2019

## Olympic Down jacket –Canada and US

The delegate winter Olympic down jackets for Canada was designed by Lululemon whose price goes for \$448, or about 363pounds (LaiTimes, 2022). The US delegation wore high-tech down jacket designed by Ralph Lauren for Beijing Winter Olympics and its official website price is \$1,998 or 1617pounds (LaiTimes, 2022).

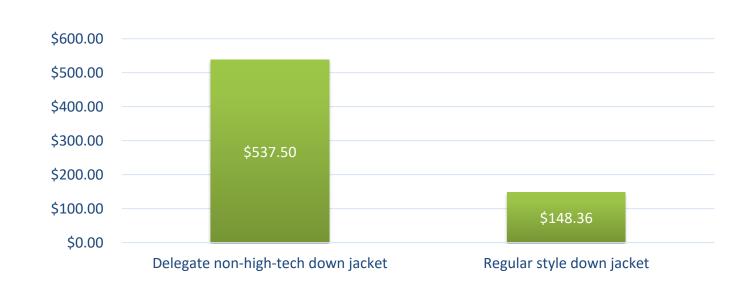


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## Olympic Down jacket – United Kingdom and Finland

It can be concluded that the fast fashion industry is extremely bad for the environment. It is adding more and more waste The British delegation on their part adhered to the British styles and dressed on woolen coats by Ben Sherman brand. The official website price of the coat was 410 pounds or \$537.50 (LaiTimes, 2022). The Finnish delegates were dressed in gray down jacket for the Winter Olympic by ICEPEAK Brand costing about \$352.19 or 319 euros or 275 pounds (LaiTimes, 2022).

### **Olympic Down Jacket: Bem Sherman brand**



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