**Viva Notes**

**The Topic:** Comparing Sentiment Analysis on Social Media and E-commerce Platforms: Apple Products

**Why did I choose this topic? – Aims (Page 7)**

* Investigating User Sentiments
* Comparison of Sentiments Across Platforms
* Contribution to Sentiment Analysis Methodologies

**Objectives (Page 7)**

* Compare and contrast different sentiment analysis methods: Naïve Bayes, VADER, SocialSent, TextBlob
* Perform an in-depth comparative sentiment analysis on discussions surrounding Apple products, encompassing both social media and e-commerce platforms
* Investigate and analyse the dominant emotions
* Discover common sentiment trends, key themes, important keywords, and significant topics
* Assess how sentiment analysis can benefit business strategies

**Methodology (Page 120)**

A diagram of data flow

Description automatically generated

**Findings and Results (Page 103)**

* Dominant positive sentiment

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| **Product** | **Main Topics** | | **Emotion Analysis** | |
| **E-Commerce** | **Social Media** | **E-Commerce** | **Social Media** |
| **iPhone** | more product-centric (technical features and accessories) | brand loyalty, model comparisons, user experiences, competition with other smartphone manufacturers | Positive (trust, enjoy) | Broader range (trust, enjoy, anger, fear) |
| **iPad** | customer satisfaction, product quality, practical aspects (accessories and functionality) | brand and model specifics, practicality and unique user experiences, brand loyalty to product integration. | Positive (trust) | Positive, but broader range (trust, anticipation) |
| **Macbook** | practicality, quality, and performance, on product models, performance, and multimedia usage | product specifics, cost considerations, and practical utility, technical specifications, purchase satisfaction, and aesthetics model preferences, performance requirements, pricing, and brand evaluation | anticipation, joy, and trust | Anticipation, trust, anger, disgust |
| **AirPods** | gift value, usability, charging features, sound quality, comfort, brand perception, performance | product features, comparisons, user experience, connectivity, design, model selection, authenticity, personalization, user experience, functional use | trust, joy, and anticipation, sadness | Anticipation, trust, sadness, fear, disgust |
| **Apple Watch** | new features, quality assessment, user expectations, brand loyalty, product quality | model comparisons, health features, battery life, daily use, functional considerations, user experience | Positive (joy, trust) | trust, fear, anticipation |

* + **General Comparison:**

|  |  |
| --- | --- |
| **E-Commerce** | **Social Media** |
| product specifics and practical utility | a broader spectrum of discussions(brand loyalty, model comparisons, and user experiences) |
| trust, joy | wider range of emotions |

**Conclusion**

* **Comparative Evaluation of Sentiment Analysis Methods**
  + **TextBlob, Naïve Bayes and VADER:** incapable to sentiments in opinion-rich forums like social media.
  + **SocialSent and LexMo:** enhanced proficiency capturing complex emotions and sentiments
* **Comparative Sentiment Analysis of Apple Products**
  + Positive sentiment with a notable emphasis on technical features, user experience, and product quality
  + E-commerce is more product-centric, but social media encompassed a broader spectrum of topics
* **Analysis of Dominant Emotions Across Platforms**
  + **E-commerce:** trust, joy
  + **Social media:** broader spectrum (including negative sentiments like anger and fear)
* **Analysis of Sentiment Trends and Key Themes in Consumer Perceptions**
  + **Key themes:** technical features, user experiences, and product quality
  + **Key positive terms:** love, great, quality
  + **Key negative terms:** disappoint, refund
* **Utilizing Sentiment Analysis for Strategic Business Insights**
  + **Sentiment analysis:** rich resource for informing business strategies, innovation, marketing choices, and enhancing customer satisfaction
  + **The emphasis on technical features and design** **aesthetics**: potential innovation and product development
  + **the varied emotional responses:** address specific consumer concerns and enhance brand perception
  + **Detected key terms (refund, disappoint):** actionable insights for improving customer satisfaction
  + **Sentiment analysis:** Critical tool for business strategies, customer preferences and expectations

**Limitation and Future Work**

* **Limitation:** Variability in the data access because of the time and system barriers
* **Future work:** 
  + expand the dataset to include real-time analysis
  + incorporating image and video content analysis
  + delving into cross-cultural sentiments by analysing feedback in multiple languages
  + incorporation of various sentiment analysis methodologies(Transformers library from Hugging Face, Google's Cloud Natural Language API, and IBM Watson)