

MARKETING ANALYTICS

BEMM463

INTEL CASE STUDY

Word limit : 2000

INTRODUCTION

Intel, a renowned leader in the computer chip industry, made a strategic move in 2014 by acquiring Basis Science, a company specializing in smartwatches equipped with high-quality heart rate sensors and advanced activity tracking algorithms. Despite the promising features, the launch of the Basis Peak smartwatch in 2016 was marred by issues related to overheating, hampering its market adoption. However, Intel diligently addressed these concerns, leveraging its expertise to develop an improved chipset for the smartwatch.

Now, with the technical glitches resolved, Intel is gearing up for a relaunch of its smartwatch, eyeing potential partnerships with industry giants such as Google, Amazon, and Aetna. Google offers integration with its Android Wear platform, ensuring seamless communication with smartphones and access to a plethora of apps. On the other hand, Amazon's partnership could provide a significant advantage through its Alexa voice interface and robust promotion and distribution channels. Aetna, as a health insurer, could facilitate the promotion of smartwatches to businesses interested in enhancing employee well-being, potentially leading to cost savings on healthcare premiums.

To determine the most viable target segment for Intel's new smartwatch and assess the value of potential partnerships, this report will analyse data collected from a survey conducted among university alumni from the class of 1996. By delving into the preferences and needs of this demographic, we aim to provide valuable insights to guide Intel's strategic decisions in the competitive smartwatch market.

ANALYSIS OF DATA

With the help of R programming for data analysis of the collected alumni data, some conclusions and summary of the data can be drawn. This includes creating a cluster dendrogram for visualization of multiple clusters that are present to get a better understanding of where the population lies by calculating the Euclidian distance.

$$d_{ij} = \sqrt{\sum_{k=1}^p (x_{ik} - x_{jk})^2}$$

The plotted clustered dendrogram graph is shown below :

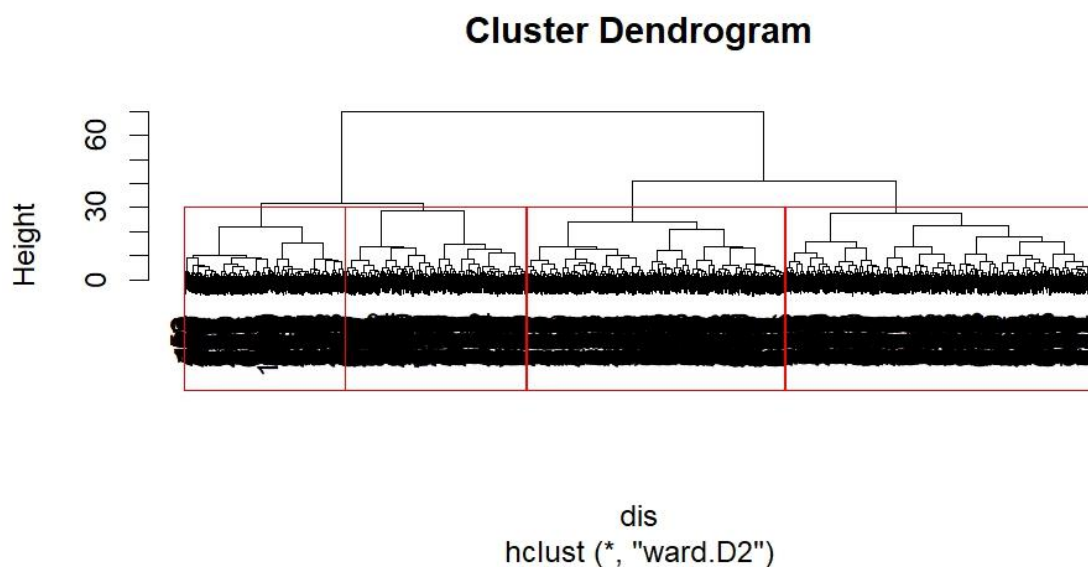


Fig 1: Dendrogram of 4 clusters

CASE STUDY QUESTIONS

1. How many distinct and meaningful segments are present in the market? Please determine the number of distinct segments present in the market as represented in the current respondent sample.

Ans: Based on the above analysis and interpretation of data, we can use the Elbow method to determine how many clusters are required for optimal analysis of how many distinct and meaning segments are present. Below is the graph of the elbow method.

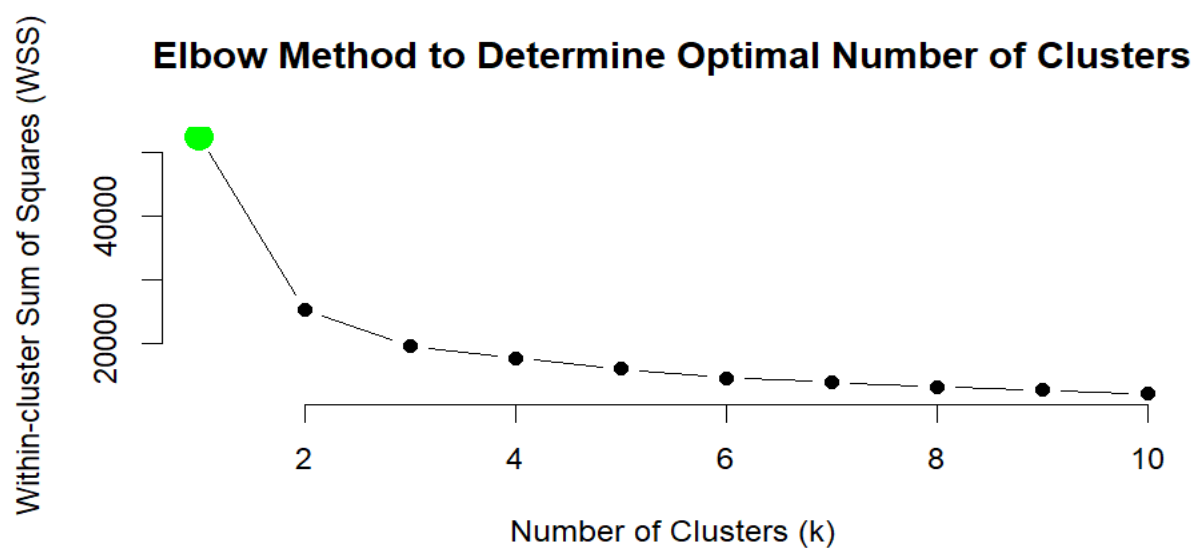


Fig 2: Elbow method

According to the elbow method, you should look for the point on the plot where the rate of decrease in the within-cluster sum of squares (WSS) significantly slows down. This point is often referred to as the "elbow" of the curve. As can be seen, after the value 4 the rate of decrease in WSS is slowing down drastically.

So, **there are 4 distinct and meaningful segments present in the market.** The cluster dendrogram for the 4 clusters can be seen in Fig 1 as well.

2. How would you describe each identified segment? Please provide a detailed description of each identified segment using the variables in the data set (e.g., their mean values). Based on the segment characteristics, create a name for each segment that captures the essence of what makes it unique.

Ans: Using R programming, the mean value of all the criteria for the 4 distinct segments can be put in a table as can be seen below,

Mean Values for Clusters												
cluster	ConstCom_M	TimelyInf_M	TaskMgm_M	DeviceSt_M	Wellness_M	Athlete_M	Style_M	AmznP_M	Female_M	Degree_M	Income_M	Age_M
1	3.823944	3.323944	3.239437	2.443662	3.281690	3.257042	3.626761	0.2711268	0.5563380	1.098592	2.640845	38.54930
2	5.126471	5.008824	4.267647	4.385294	3.705882	2.726471	3.708824	0.5911765	0.4529412	1.402941	3.470588	39.38235
3	5.576271	4.531073	5.621469	4.548023	6.310734	4.853107	5.994350	0.9491525	0.5536723	1.689266	3.892655	31.50282
4	4.391960	4.226131	4.140704	4.271357	5.316583	5.542714	4.758794	0.5929648	0.7839196	1.226131	3.381910	28.14573

Fig 3: Mean values of clusters

Based on the mean values, it can be seen that most of the people who took the survey are female as the mean value is over 0.5 in 3 out of 4 selected categories. I have come up with unique names to the 4 categories to the best of my interpretation irrespective of the gender as :

1. The Middle-aged : I chose to name this category the middle aged considering majorly the mean values of "Age", "Device Sturdiness"(lesser the value suggests lesser movement among people of this category making them rate lesser in this area),"Amazon prime"(being a middle aged makes the people of this age hard working which is reflected in people not having amazon prime account).

1 3.823944 3.323944 3.239437 2.443662 3.281690 3.257042 3.626761 0.2711268 0.5563380 1.098592 2.640845 38.54930

Fig 4: Mean value of cluster 1

2. The Retired : I chose to name this group of people the Retired mainly because of low mean value in the "Athlete" category and higher mean values in Constant communication and timely information. This suggests that people of this category want to be notified on a very frequent basis and are in a low mobility phase. The "Age" category supports the above discussion as mean value is nearing 40.

2 5.126471 5.008824 4.267647 4.385294 3.705882 2.726471 3.708824 0.5911765 0.4529412 1.402941 3.470588 39.38235

Fig 5: Mean value of cluster 2

3. The Leisures : This group consists of almost all the people having an Amazon prime membership(mean value almost 0.95). This is the group of people who also care about the trendy appearance and how well the device helps in their wellbeing(the mean value being more than 6 suggests that more than 90% of people in this category are concerned about their wellbeing). This suggests that the group of people are ready to spend more time and money(as their mean income is nearing a \$100k) on self-care which tells that they have more leisure time compared to other groups of people.

3 5.576271 4.531073 5.621469 4.548023 6.310734 4.853107 5.994350 0.9491525 0.5536723 1.689266 3.892655 31.50282

Fig 6: Mean value of cluster 3

4. The Workaholics : This group of people are of younger age, mean value of age being around 28 years. All the other categories mean values such as the Constant communication, Timely information, task management, Wellness and style are over the 50% mark suggesting that these are the trendy category who are invested in the technological aspect of life and want to make use of technology to the best of their ability.

4 4.391960 4.226131 4.140704 4.271357 5.316583 5.542714 4.758794 0.5929648 0.7839196 1.226131 3.381910 28.14573

Fig 7: Mean value of cluster 4

3. Which segment should be targeted by Intel? How should Intel position itself to compete strongly in the targeted segment(s)? Please provide a detailed discussion of each identified segment, based on the attractiveness of the segment for Intel and the strength of competitors' offerings (e.g., Samsung, Apple, etc.). Explain the factors that you used to rate the attractiveness of each segment and Intel's competitive strength.

Ans: Let us see the number of people in individual clusters to decide which cluster can be considered as the target audience.

```
> table(cluster)
cluster
 1      2      3      4
284  340  177  199
```

Fig 8: Count of clusters

Even though the cluster 2 has a greater number of people, that is 340 out of 1000 people, I personally feel selecting the third cluster, THE LEISURES would be a better choice than the other clusters that are present as the range of features the product can have would be more compared to other clusters as the mean value in most of the aspects is higher in the third cluster.

If we look at the Income section of the clusters in Fig 3, the Leisures earn more in average compared to other clusters which suggests that they would be ready to spend on a technology that would be beneficial for them. The qualification sector is also higher in the Leisures which suggests that with the right advertisement, selling the product to this segment would be more efficient rather than trying to sell it a group who is not ready to spend on technology.

Let us now see the SWOT analysis of INTEL to see how the company should position itself to compete strongly and strategically in the targeted segments.

SWOT ANALYSIS

Strength : Intel's extensive technological expertise positions it as a strong contender in the smartwatch domain, with its deep-rooted experience in semiconductor manufacturing and innovation. This expertise could facilitate the development of advanced components like processors and sensors for smartwatches. Moreover, Intel's well-established brand recognition within the technology industry could bolster the market acceptance of its smartwatch offerings. Additionally, Intel's substantial investments in research and development could fuel the creation of innovative features, enhancing its competitive edge in the market.

Weakness : Despite its technological prowess, Intel lacks experience in the consumer electronics and wearables market, potentially hindering its understanding of consumer preferences. The highly competitive nature of the smartwatch market, dominated by industry giants like Apple and Samsung, poses a challenge for Intel to carve out a significant market share. Additionally, Intel's success in this space heavily relies on partnerships, which may limit its control over the product lifecycle. Battery life concerns, as evidenced by past issues with its Basis Peak smartwatch, could also affect consumer perception and adoption of Intel's smartwatch offerings.

Opportunities : Intel can capitalize on the rising demand for smartwatches with health and wellness features by developing products with advanced health monitoring capabilities. Integrating smartwatches with IoT devices presents an opportunity to expand market reach and revenue potential. Furthermore, targeting enterprise markets with specialized smartwatch solutions tailored to industries like healthcare and logistics could open new revenue streams. Offering customization options and personalized experiences for users could also enhance Intel's competitiveness in the smartwatch market.

Threats : The rapid pace of technological change poses a significant threat to Intel's relevance in the smartwatch domain, as keeping up with competitors and evolving consumer preferences becomes challenging. Market saturation and commoditization may lead to price pressures and erode Intel's market share. Concerns regarding data privacy and security could result in regulatory scrutiny and damage Intel's reputation. Moreover, supply chain disruptions could impact production and product availability, posing a threat to Intel's success in the smartwatch market.

Based on the above analysis, Intel has to proceed in a way that deals with grabbing right opportunities and overcoming the existing weaknesses to surpass potential threats(competitors).

One such way of doing that is by partnering with a Giant company such as Aetna, Amazon, or Google to release a new smartphone with a better design overcoming the previous weaknesses.

Amazon and Google both equally provide unique features and support in launching a smartwatch for Intel. In my opinion, Amazon would be a great fit for Intel's partnership as most of the target segment uses Amazon Prime(mean = 0.95) so it would be easier to link both. Having a virtual assistant feature in something that is trending and Intel could jump in the competition by partnering with Amazon by gaining access to ALEXA assistant. As Intel is not seen as a major smartwatch producer, having a great advertising partner for the smartwatch would be great support. Amazon also has an obvious advantage in promotion and distribution, as it can utilize its own retail platform.

Aetna would be a great partnership if the product only involved wellness. As the leisures look out for more than just wellness, it would not be a great fit to partner with Aetna.

As the chosen segment is The Leisures, Intel should focus more on features related to more notifications and alerts(mean = 5.8) and also on the looks of the product. Partnering with Amazon would fulfil most of the areas even though google helps in supporting apps.