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Coursework: Case Study Report

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Case Study Report

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1 Introduction

Intel is a world leader in the computer chip industry. In 2014, it acquired Basis Science, which was a smartwatch manufacturer with high-quality heart rate sensors and algorithms to track activity and monitor sleep patterns. In 2016 when The Basis Peak smartwatch was released, the watch failed to catch on because of its heating issues, but since then Intel has managed to fix the problem and come up with a much more advanced chipset than before. The potential partners for the relaunch of intel's new smartwatch in the current market can be Google, Amazon and Aetna. In this report, I will try to figure out which should be the target segment for intel's new smartwatch and which company's partnership is the most valuable. The analysis is done on data collected by intel in a survey of university alumni of 1996.

2 Case Study Questions

2.1 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.

Answer 1 : There are 4 distinct meaningful segments in the market according to the data. To first make distinct and meaningful segments in the data these are the steps I followed:

1. First I selected all the attributes asked in the survey and created a summary statistic of the scores to understand the distribution better.

	ConstCom	TimelyInf	TaskMgm	DeviceSt	Wellness	Athlete	Style	AmznP	Female	Degree	Income	Age
Min	1	1	1	1	1	1	1	0	0	1	1	24
1st Q	4	3	3	3	3	3	3	0	0	1	3	31
Median	5	4	4	4	5	4	4	1	1	1	3	36
Mean	4.69	4.29	4.19	3.84	4.367	3.814	4.299	0.564	0.566	1.332	3.292	35.52
3rd Q	6	5	5	5	6	5	5	1	1	2	4	40
Max	7	7	7	7	7	7	7	1	1	2	5	47

   From this, we can see that the highest mean value of scores is for "ConstCom" followed by "Wellness" and "Style". This leads me to believe that most people think being constantly connected is the most important, i.e. most people are looking for immediate notifications on their social media, calls, emails, etc. Then about their Wellness, followed by the Style of the watch, and so on.

2. The data was then scaled or normalised. Scaling is used to remove large discrepancies in the range. For example, "ConstCom", "TimelyInf", "TaskMgm", "DeviceSt", "Wellness", "Athlete" and "Style" are all rated on a range of 1 to 7, with 1 being the least essential and 7 being the most important, however "AmznP", "Female", "Degree", "Income" and "Age" are all scored on separate scales. This is because the first seven properties describe the user's preferences, whereas the remaining attributes describe the user. To compare this numerical values, we must first normalise them.

3. Then Ward's Hierarchical Clustering was then used. The data set is viewed as one giant cluster in this technique, and the euclidean distance between two data points is determined; the greater the

distance between two connections, the greater the difference in terms of characteristics. From the bottom up, following the development of the top 4, the space between the connections becomes quite vast. This caused me to split the cluster into four segments.

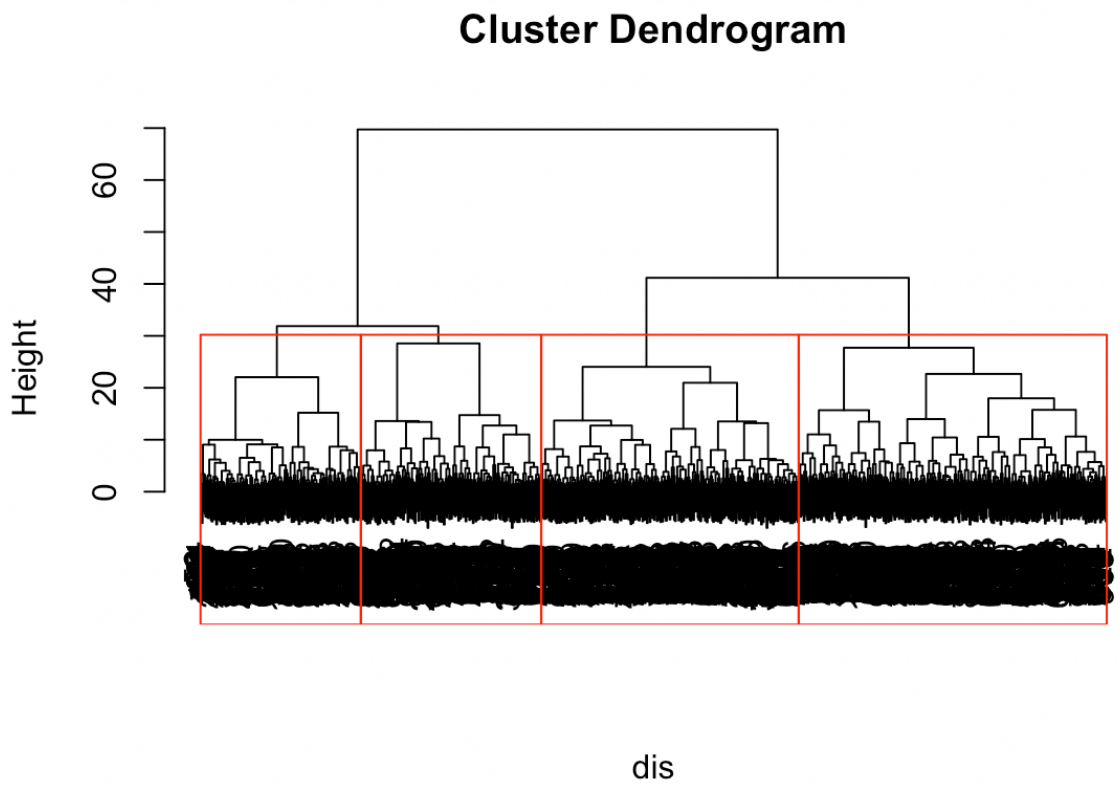

Figure 1: Dendrogram dividing in 4 cluster.

4. The 1000 surveyed people are divided into 4 segments:

1	2	3	4
284	340	177	199

2.2 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.

Answer 2. To describe the 4 identified segments I took their summary statistic.

2.2.1 Cluster 1: The Luddite

1. Luddite has 284 people out 1000. It is the second largest segment.
2. It contains people with comparatively lower income (mean= 2.640845), who only have an undergraduate degree (mean=1.098592)and are in their late 30s (mean=38.54930).
3. They are slightly more female than male (mean=0.5563380) and generally do not have an amazon prime membership(mean=0.2711268).
4. They care the least about their style (mean= 3.626761).
5. They are apathetic in regards to fitness (mean=3.257042) and least about well-being (3.281690).

6. To them the Device sturdiness (mean= 2.443662) is unimportant so is the ability to manage or automate tasks quicker (mean=3.239437).

7. They care the least about receiving latest updates of all information(mean=3.323944) and worry the least about staying connected to friends and family (mean=3.823944).

2.2.2 Cluster 2: The Generic

1. Generic has 340 people out of 1000. It is the largest and the oldest (mean=39.38235) segment out of all 4.

2. It contains people with the second highest income (mean=3.470588) but is closer to the average than the max.

3. They have a mix of undergraduate degree and higher but slightly more undergrads (mean=1.402941).

4. They are slightly more male than female (mean=0.4529412) and have slightly more amazon prime memberships than not (mean=0.2711268).

5. They are apathetic about their style (mean=3.708824). They care the least in regards to fitness (mean=2.726471) and second least for well-being (mean=3.705882).

6. To them the Device sturdiness (mean= 4.385294) is 2nd most important.

7. They are care slightly about the ability to manage or automate tasks quicker (mean=4.267647).

8. They care the most about receiving latest updates of all information (mean=5.008824) and worry the 2nd most about staying connected to friends and family (mean=5.126471).

2.2.3 Cluster 3: The Lavish

1. Lavish has 177 people out of 1000. It is the smallest segment out of all 4.

2. It contains people with the highest income (mean= 3.892655). They have slightly more higher education (mean=1.689266) in their early 30s (mean=31.50282)

3. They are slightly more female than male (mean=0.5536723) and almost all of them have a amazon prime memberships than not (mean=0.9491525).

4. They care about their style (mean=5.994350) and, care the 2nd most in regards to fitness (mean=4.853107) and most for well-being (mean=6.310734).

5. To them the Device sturdiness (mean= 4.548023) is important.

6. They care the most about the ability to manage or automate tasks quicker (mean=5.621469).

7. They care the 2nd most about receiving latest updates of all information (mean=4.531073) and worry the most about staying connected to friends and family (mean=5.576271).

2.2.4 Cluster 4: The Young

1. Young has 199 people out of 1000. It is the 2nd smallest segment out of all 4.

2. It contains people with the average income (mean= 3.381910). They are mostly undergraduates(mean=1.226131) in their late 20s (mean=28.14573).

3. They are more female than male (mean=0.7839196) and slightly more than half of them have a amazon prime memberships than not (mean=0.5929648).

4. They care 2nd most about their style (mean=4.758794) and, care the most in regards to fitness (mean=5.542714) and 2nd most for well-being (mean=5.316583).

5. To them the Device sturdiness (mean= 4.271357) is somewhat important.

6. They somewhat care about the ability to manage or automate tasks quicker (mean=4.140704).

7. They moderately care about receiving latest updates of all information (mean=4.226131) and about staying connected to friends and family (mean=4.391960).

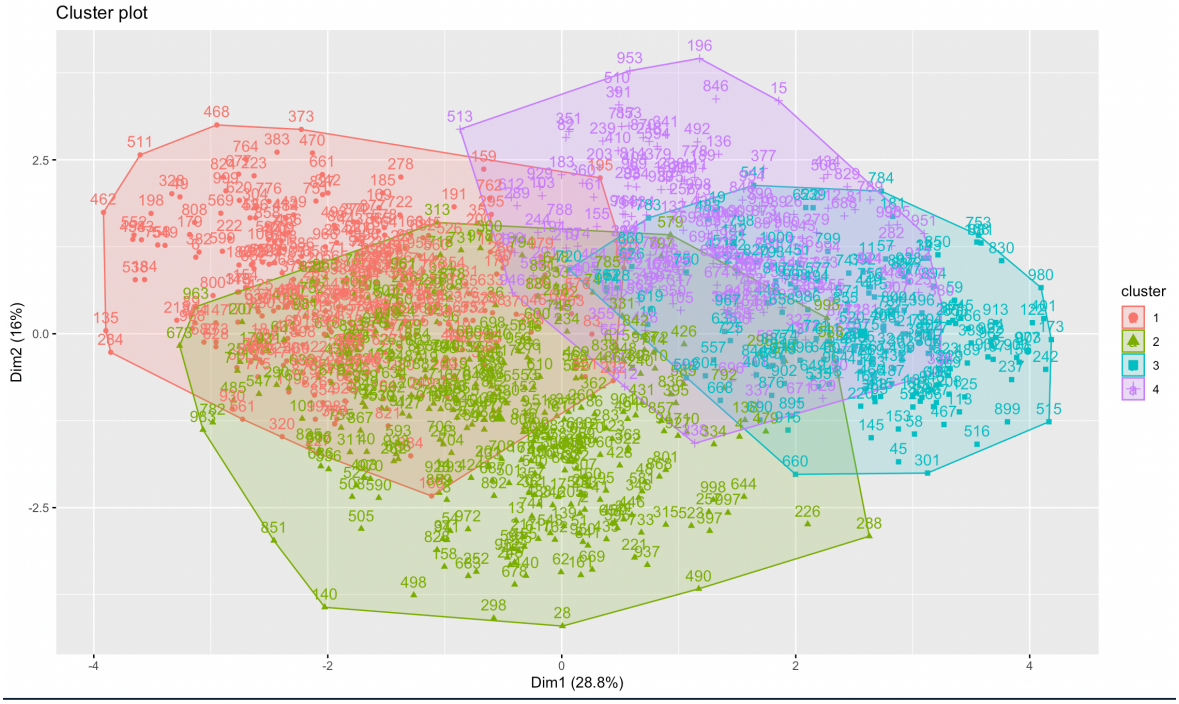

Figure 2: Cluster Analysis

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

Figure 3: Mean Values of Clusters

2.3 Which segment should be targeted by Intel? How should Intel position themselves 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.

Answer 3. I believe Intel should target The Lavish: Cluster 3. Lets see it throught the marketing decision framework.

2.3.1 Customer

- Needs:

1. Well-Being
2. Style
3. Task Management
4. Constant Communication

- Demographics:

1. The number of connected wearable devices worldwide has more than doubled in the space of three years, increasing from 325 million in 2016 to 722 million in 2019. The number of devices is forecast to reach more than one billion by 2022.("Global connected wearable devices 2016-2022 — Statista", 2022)

2.3.2 Intel SWOT Analysis

Internal		
	Explanation	Strategy Implications
Strengths	1. Leader in computer chips. 2. High Quality Heart rate sensors from Basis Science. 3. Economies of scale.	Can produce chip sets and hardware on a very large scale.
Weakness	1. Does not have a watch operating system. 2. Does not have a distribution network. 3. New comer	1. Is dependent on other companies for Operating system and distribution. 2. Other established firms have already capture a large chunk of the market share.

External		
	Explanation	Strategy Implications
Opportunities	1. Own hardware and chip set integration. 2. High Quality Heart rate sensor technology. 3. Low risk of failure.	1.Optimum integration and energy management. 2. High Quality Fitness Tracking. 3. Less risk a huge fortune in research and development.
Threats	1. Dependency on other companies for OS 2. Does not have a distribution network. 3. New comer	1. Is dependent on other companies for Operating system and distribution. 2. Competition is starting to produce its own chips and hardware and have been established in the smart watch market for longer.

2.3.3 Competition SWOT Analysis

"In 2021, Apple led the global smart watch market, holding over 30 percent of the market. This value was slightly lower than the brand's share in 2020 (32.9 percent). Apple was followed by Samsung (10.2 percent), Huawei (7.7 percent), and Imoo (5.2 percent)." ("Smartwatch market share worldwide by vendor 2021 — Statista", 2022) The main competitors are Apple and Samsung:

Internal		
	Explanation	Strategy Implications
Strengths	1. Well established in the market. 2. Has a huge customer following 3. Repair ability	Has shops its own shops everywhere. Integration with its already selling Smartphones.
Weakness	1. can eat up their own products in long run. 2. Yet to set a reason for owning it.	can become competition to its own product.

External		
	Explanation	Strategy Implications
Opportunities	1. Own hardware and chip set integration. 2. High brand awareness 3.The needs of next generation	1.Optimum integration and due to its own ecosystem. 2.Global watch market is profitable 3. It can be a defining new product category
Threats	1.Competition due to lack of innovation. 2. dependent on its own ecosystem.	if one product in its ecosystem fails all the product categories get effected due to building of ecosystem. 2. Competition is starting to produce its own chips and hardware

2.3.4 The STP approach

1. Identify Customer Segments:
   - Luddite
   - Generic
   - Lavish
   - Young
2. Select Target Segment: The Lavish which contains the needs :
   - Well-Being
   - Style
   - Task Management
   - Constant Communication
3. Position Against Competitors:
   - Who? Early 30s, high income mostly higher than undergraduate educated,slightly more likely to be female, Amazon Prime subscribers.
   - What? Looking for well being monitor and reminder smartwatch that is also stylistic and can keep them connected and set reminders.
   - Why? Highest performance and design that looks good. Status symbol.

Reasons to target "The Lavish":

1. They care the most about well-being: The majority of respondents in this cluster value their well-being (mean=6.310734). It has the greatest mean value not just when compared to other clusters, but also when compared to all of the survey score's mean values. Because of Intel's acquisition of Basis Science in 2014, gives a unique opportunity for the corporation. Intel is in a very strong position to join the market and target this niche because of its high-quality heart rate sensor and extremely intelligent chipset. Intel also has the option of partnering with health insurance company Atena. They may be a useful partner because of their ability to promote the watches to businesses concerned about employee well-being. The Periodic reminders (e.g., breathe, stand up, walk) applications integrated with the smartwatch will encourage better living and help companies save money on healthcare costs.

2. They care the most about Style: Lavish care the most about style out of all the clusters. "The Luxury Watch market has a strong track record Watches at the luxury end of the market have outperformed lower-priced segments and represent 91.6Intel has the opportunity to target the luxury smartwatch market.It can spend research and development for making the watch design premium. It can partner with high fashion brands to create bands and other accessories for its watches.

3. Task Management and Constant Communication: Task Management (mean=5.621469) and Constant Communication (mean=5.576271) are two more key segments that intel may target for this cluster. Since Intel has the opportunity to partner with Google, the Android watch OS that Google has to offer includes play store applications and services which are well known throughout the world. As of May 2022, Google's Android OS has the biggest market share (71.45 per cent). The tools for best-in-class Task Management with Google Assistant are provided via integration with Google and its apps. Because all of the social media and connection apps on your android phone already have a watch OS integration, the Google partnership also provides constant connectivity.

3 Problem Statement

3.1 How can the company effectively segment the market for smartwatches based on differing consumer needs?

Answer: The differing customer need according to the data that is provided are:

1. Constant communication
2. Timely information
3. Task management
4. Device sturdiness
5. Well-being
6. Fitness Tracking
7. Style

Based on these different identified needs, data is collected. According to this market analysis is done by conducting a survey from 1000 university alumni. With the help of this data similar data points are grouped into clusters using "Hierarchical clustering" and linkage "ward" linkage type.

3.2 From what segment(s) of the market should Intel draw customers? How can Intel position itself or work with partners more strongly in these segments?

Answer: We may view the relative means of all the segments by extracting the data's summary statistics. Constant Communication appears to have the greatest mean value, followed by well-being

	ConstCom	TimelyInf	TaskMgm	DeviceSt	Wellness	Athlete	Style	AmznP	Female	Degree	Income	Age
Mean	4.69	4.29	4.19	3.84	4.367	3.814	4.299	0.564	0.566	1.332	3.292	35.52

Figure 4: Mean Values.

and style. However, after segmenting the data set into four clusters in the preceding questions, we may pick that well-being is the most clear choice among all, in our chosen cluster "The Lavish." Intel's possible partners include Atena, Google, and Amazon. Intel, in my opinion, should collaborate with Atena and Google. Atena, a health insurer, might assist us in ensuring that we target consumers and businesses who take well-being seriously in order to prevent health-related problems and absences. While Google can assist in the integration of Android watch OS as well as integration with its large variety of connectivity goods such as Home pods, Google Home Mini, Google Buds, Google Pixel, and so on. I don't think a relationship with Amazon is the best option, unless it's only for distribution. This is because Amazon is mostly recognised as a retailer, and integration with its "Alexa" goods isn't particularly profitable because Google controls the majority of the market share. If the consumer still want to link their "Alexa" devices to the smartwatch, they can do so by downloading apps from the Android Play Store.

3.3 Bibliography

1. Global connected wearable devices 2016-2022 — Statista. Statista. (2022). Retrieved 17 June 2022.

2. Smartwatch market share worldwide by vendor 2021 — Statista. Statista. (2022). Retrieved 17 June 2022.