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The Birth Of A Product

Where do ideas come from? Not everything can be completely original, but sometimes it's more advantageous to use concepts and designs that already are successful in a product and make them better in a new design. Part of the creative process is also brainstorming ideas and channelling them to birth a new innovative one. By analysing past innovations and ideas, product ideation and design can incorporate valuable insights and concepts that can positively influence the development of modern products, resulting in improved functionality, aesthetics, and overall user experience.

The development of a product requires a detailed conceptualization and a solid ground before it is able to be launched. An important concept to capitalise on is the basics of marketing which are the four P's: product, place, promotion and price. With these in mind, designers must carefully consider ways to appeal to the customer, and from that idea brainstorm a way to come up with something that will be successful. When dealing with the product, according to "Seeking the Ideal Form: Product Design and Consumer Response" by Peter Bloch, states that "The form or exterior appearance of a product is important as a means of communicating information to consumers" (Bloch 16). This accentuates how the product form is important in creating first impressions of an item. When a customer is walking down the aisle in the mall, how will the product capture the attention of them? There are thousands of different items in a store, and how a product is designed and how its appearance communicates with the consumer is crucial when in the first stages of innovation. Of course the mall is not the only outlet where a product can be sold, the place is also important in terms of marketing and how to appeal to the consumer. In modern times, shopping is as easy as clicking "Buy Now" on Amazon. The various ways to reach a customer must also be considered when designing the product as the place that it is being utilised to reach consumers can affect the style of the item. In addition, when put into the market the promotional materials and price of the item affect the success of the product. The promotions must appeal to the customer and be relevant to the product by making its main strengths clear to the buyer. The price must also be a clear representation of the value of the product, and how much it is worth. The four P's of the marketing mix are imperative for a product designer to keep in mind when planning the first stage of the product and how it will benefit the customer in a way that it is successful for both the buyer and the maker.

Now that it is clear what the designer must have in mind, the first thing that must happen is that an idea must be formed. This requires going through the design thinking process which is illustrated in Appendix Figure 1 from the *American Libraries* journal, "Design Thinking" by Steven Bell sketches out the development approach to a design which can help the user become a design thinker. The primary step that starts the process is to understand the user problem, which includes their needs and perceptions. Once aware of what the user needs to solve, the challenges of meeting these needs and perceptions need to be addressed and figured out. The importance of observing is to determine how to best fit the user and how the design will solve their challenges

based on what the user likes and dislikes. After observing the user and their preference, the next is to visualise ideas and brainstorm solutions. This falls hand in hand with evaluating in which a prototype must be developed and undergo testing. This is based on the visualisation of the ideas which must be altered when testing and coming up with new solutions to problems that come up. After successful testing, the prototype must be refined in its idea and solution in order to implement in the financial market for the consumer. This design thinking process is ongoing as more issues come up, solutions must be developed to address the problem. Products can always be improved and that is why the design process must be thoroughly thought through before it can be used by customers.

I was able to see the design thinking process during my Internship visit to Belfast with the Pitchbooking company. This company focuses on the target market of the sports industry and focusing on customers that will need a booking platform for their facilities or events such as basketball camp or a football pitch. When introducing the company to a customer, a demo is conducted which explains what Pitchbooking can do to help and the problems that the platform solves. During the day visit, the team began with an exercise which is used by Airbnb when thinking of the experiences that they offer to users. The exercise starts with imagining what a one star experience would look like and what that would be for the user, then after reflecting on this, think of what a five star experience would be like and then an eleven star experience. When thinking of the different starred demo experiences, one team member wrote on a whiteboard all of the bullet points that people were saying. This exercise created a visualisation of the comparison between the one star with the five star and showed what might be actually possible with the eleven star demo. Looking at the one star experience would be like if a customer does not show up to the demo, a five star would be if the customer decides to hire Pitchbooking and an eleven star would be if a famous football team personally delivered the demo to the company. By doing this exercise that Airbnb does, allowed the team to reflect on what they are doing and how the demo can be improved on, no ideas were turned down and it also enabled people to build on each other. This design process allowed the team to determine issues in the current demo and develop solutions through brainstorming ideas that could be implemented.

As the Pitchbooking team used an exercise that Airbnb has used, using existing ideas from other sources is a helpful way to improve a product. This builds on a concept called Participatory Design which is expanded on in the article "Design Things and Design Thinking: Contemporary Participatory Design Challenges" by Erling Bjogvinsson. The article states how "Design things are in focus when inquiring into the "agency" not only of designers and users, but also of non-human "actants," such as objects, artefacts, and design devices" (Bjogvinsson 103). This quote highlights how past objects should be observed in order to contribute to the design process in which the designer can learn from previous artefacts to improve the current one. Participatory design allows there to be a space to get feedback and improve the product based on other perspectives, whether they be human or non-animate objects. To receive agency from a non-human is difficult as objects cannot speak or give feedback. But there are a lot of things to learn from objects such as their past success and failures. The use of "design things" suggests that artefacts which are created through the design process possess their own abilities that are able to show their interactions, behaviours and experiences. Thus, how the object performs in the market can help the designer know what to follow and what not to follow. Duplicating the success of an object does not necessarily mean that the object is being copied, but moreover that

the product is taking advantage of what was successful and implementing it in its own way to solve the solution that it is trying to solve.

To expand on how existing objects affect current designs in the modern day, it is possible to capitalise on some examples that society uses every day. Something that people use everyday is a car which is mainly used for transportation. The Model T from Ford is a prime illustration of improving previous designs to create an entirely new one that was revolutionary to the world. According to the official Ford website which includes an article about “The Model T”, some of the alterations on the car from the previous model included “replacement of steering wheel on the left side, engine block and crankcase cast as a single unit, removable cylinder head, agile transmission and the use of vanadium steel”. These changes illustrate how previous products can be built upon as Henry Ford focused on how to standardise a car which could be used by the middle class. The Model T exemplifies the concept of enhancing previous products because the Model T was designed to be affordable, where the production cost was lowered because of the use of the assembly line. Additionally, the introduction of the standardisation of the automotive industry through interchangeable parts allowed for the possibility of mass production as it also reduced the costs of maintenance in the future. Thus, through the affordability and the standardisation of the vehicle, the car was able to be mass produced and allowed the typical working man to be able to afford a car for transportation. Another example of a company building on their past products to create a whole new product is the Apple iPod to iPhone. Having been a previous owner of an Apple iPod and now an Apple iPhone user, there are specific characteristics which have been apparent when comparing the two. Apple built on the success of the iPod by incorporating important aspects such as the touchscreen interface, expanding the capabilities so it was not limited to music, added a camera lens, and the app store for other applications on top of voice and texting. The use of utilising the past product of the iPod to create the iPhone allowed Apple to use what was successful and build upon issues the music player brought up and the capabilities that the iPod did not have. Therefore, the strategy of building on the innovation of past products has proven to be successful in two of the industries that people use every day.

During my internship, I was able to put the strategy to the test by researching how previous companies perform data analysis on their customers to plan out the project that I was assigned to for the Pitchbooking company. The project was to design an analytics page for the events that customers hosted in their facilities. Examples of events included, summer camp, 4-week courses, and field days. This would be a webpage in which I was given the freedom to start from scratch or base it off another analytics page for facilities which is Appendix Figure 2, that was already on the dashboard. I chose to go with the previous design for uniformity, but also decided that I would improve upon the design based on what I thought could be fixed or customers had complained about. While analysing the previous facility design, I determined the successes and the failures. One of the failures that stood out was the Utilisation Analytics of the facilities which would not be able to be transferred over to the events, as the facility analytics were by day of the week and events do not always happen every day. After establishing that I would need to fully develop a new Utilisation Analytics, I explored how other companies did their analytics on utilisation and what their data analytics accomplished and if I also needed to see that data. This was extremely helpful in which I found sources from analytics from SquareSpace and Google Analytics shown in Appendix Figure 3 and Figure 4. In Appendix

Figure 3, it demonstrates examples of the tracking of foot traffic on a website. In these graphs, It shows how users are visiting the site, how many views the site has per day, and which pages have the most views. When getting analytics from a website, it is important to know how the website is being found and what pages the customers are interested in. This gave me the idea of what data the company would want to see from their events and to make sure that I was tracking what the most popular events were and find a way to show that in the analytics. From a meeting with a client, I knew that they wanted to see how many bookings and space was utilised for each event, and I just needed to figure out how to show that in a chart and statistics. This is when I did research on the google analytics data in which it helped me figure out that I could use a pie chart to showcase the number of bookings for each event. The pie chart would make sense as opposed to the bar chart shown in the facility analytics because there are only two variables, bookings and not bookings. This way when the customer would look at the utilisation page, it would be very clear the ratio of usage in their events. Using these ideas from other examples, enabled me to improve my own design shown in Appendix Figure 5 and my creative mindset because I was able to see what was already successful in other companies and how I could incorporate those successes into my own project.

Furthermore, going farther in market research I went deeper into finding out what people thought about using past products to improve upon new designs. In order to do this I conducted a survey on how peoples' past experiences with products influence their preferences for new products. I was able to gather information from a group of 30 students studying Computer Science in University and was able to gather some interesting observations. From the graphs in Appendix Figure 6, I came to the conclusion that students with a background in technology from the ages of 19-22 value the importance of design elements from past products as well as functionality and features as it influences their current product preferences. Looking at Figure 6a, more than half of participants said that it was very important to incorporate design elements from past products into new products. While only one person said it was not important at all with the rest of the participants saying it was somewhat important. This high percentage of votes exemplify that the incorporation of design elements from past products suggests the significance of continuity or nostalgia in design in which it makes new products more appealing to the customer. In Figure 6b, the question is targeting the importance of familiarity and design preferences when gathering insight on how much weight should be given to incorporating design elements from past products. From the survey, 100% of respondents said that their past experiences with products influence their current product preferences "a great deal" or "somewhat". Since 0% of respondents said "not at all" it is a clear indication that past experiences can influence people's loyalty with the company and with the product. In Figure 6c, asks about what companies should focus on: new, innovative products, or building on past products to create something new. This question also asked why the participants chose their answer, as 63.3% of people said that companies should focus on building on past products to create something new and 36.7% said new and innovative products. From these responses, one participant said, "People are familiar and comfortable with their current products. New products should keep their strong suits and build to improve them." This quote capitalises on the comfort that people have with their past products and how this affects their individual feelings on a new product. People tend to have loyalty towards products that have proven to be successful for them while if a past product has been a failure, that affects their purchases in the future. Thus, this

market research was an interesting view on the current generation who are starting their careers after University and how they will choose to spend the money that they make.

New products are introduced into the world everyday, most products aim to solve a problem that is yet to be addressed. While acknowledging the influence of past products on current ones, it is equally crucial to recognize the value of generating original ideas and striving for complete novelty. In the article “When Is a New Thing a Good Thing? Technological Change, Product Form Design, and Perceptions of Value for Product Innovations” by Violina P. Rindova and Antoaneta P. Petkova, states that “Strategy scholars view innovation as a primary means for value creation that enables firms to disrupt the competitive status quo in markets and displace entrenched competitors” (Rindova 217). This illustrates how significant innovation is for companies who are competing with others. By fostering a culture of ideation and actively pursuing new ideas, innovation can be a powerful driver for product design within organisations. The release of a completely new product compels competitors to adapt and align their offerings with the evolving customer needs, compelling them to expand their market reach. The article also accentuates that, “Novelty in turn affects the cognitive and emotional responses that underlie customer assessments of the value of a new product” (Rindova 218). This highlights how the level of uniqueness and newness in a product has an impact on how customers perceive and evaluate its value. The novelty of a product, combined with customers' unfamiliarity with its purpose due to its unprecedented nature, exerts a profound influence on their cognitive and emotional responses, ultimately shaping their assessment of its value. Thus, how a customer evaluates a new product lays the foundation for their perception of its value, extending its influence to subsequent products offered by the same company.

While building on past products adds an important dimension to product design, it also leads to the questioning of the balance between innovation and imitation. Some companies or people may face criticism for not being innovative enough, resulting in a lack of genuine uniqueness. When products are simply replicated or too closely mimicking previous products without significant value or improvements, accusations of copying arise. Such practices can be seen as attempts of stealing ideas from companies without the true originality of the design process and lead to complicated problems. Consequently, ethical debates can arise and a company's originality and integrity can be questioned, as their product is not as different from the past product that they had designed. Thus, striking the right balance between drawing inspiration from the past while pursuing novel and unique solutions is imperative in product design, as ethical considerations must be kept in mind when creating a product for customers.

In conclusion, the process of generating ideas and designing new products is a complex and multifaceted endeavour. While it's true that not everything can be completely original, incorporating successful concepts and designs from existing products can be advantageous in creating better designs. Examples from industries like automotive and technology, such as the Model T and the evolution from iPod to iPhone, demonstrate how building upon past successes and addressing limitations can lead to revolutionary advancements. By fostering a culture of ideation and embracing both the value of existing concepts and the drive for novelty, organisations can drive product design, fuel competition, and expand market reach.

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Appendix

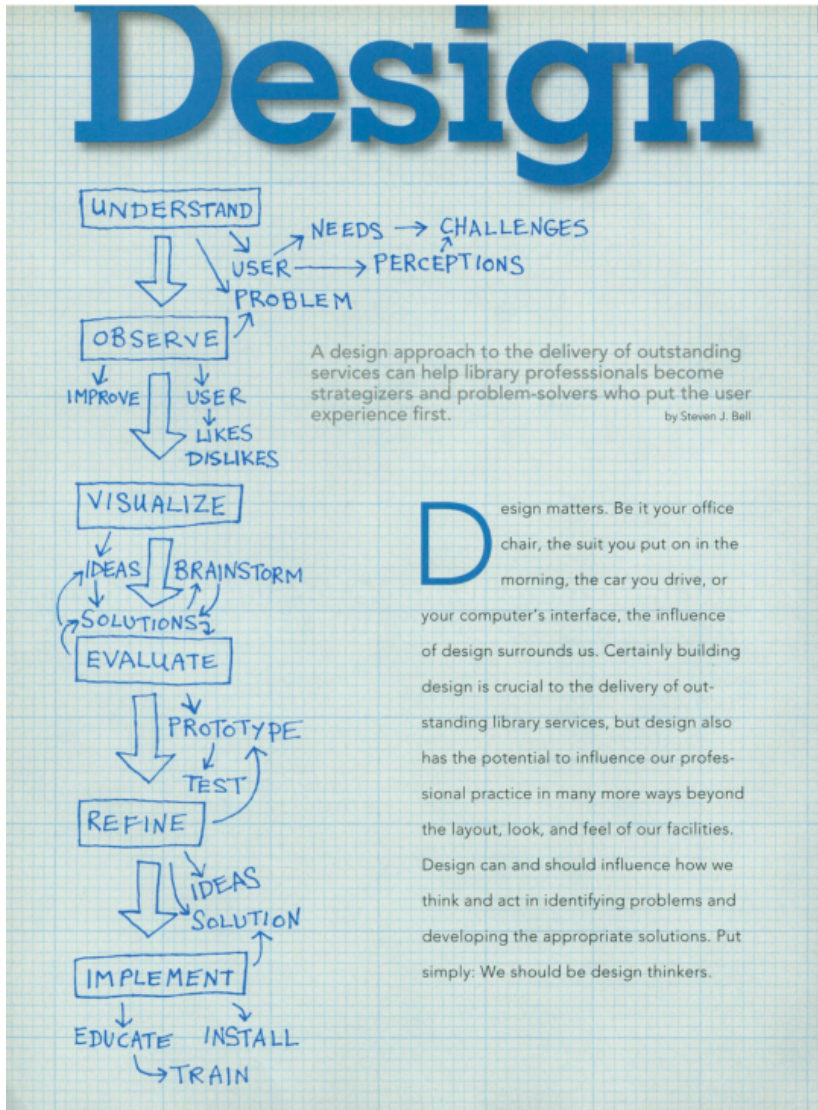
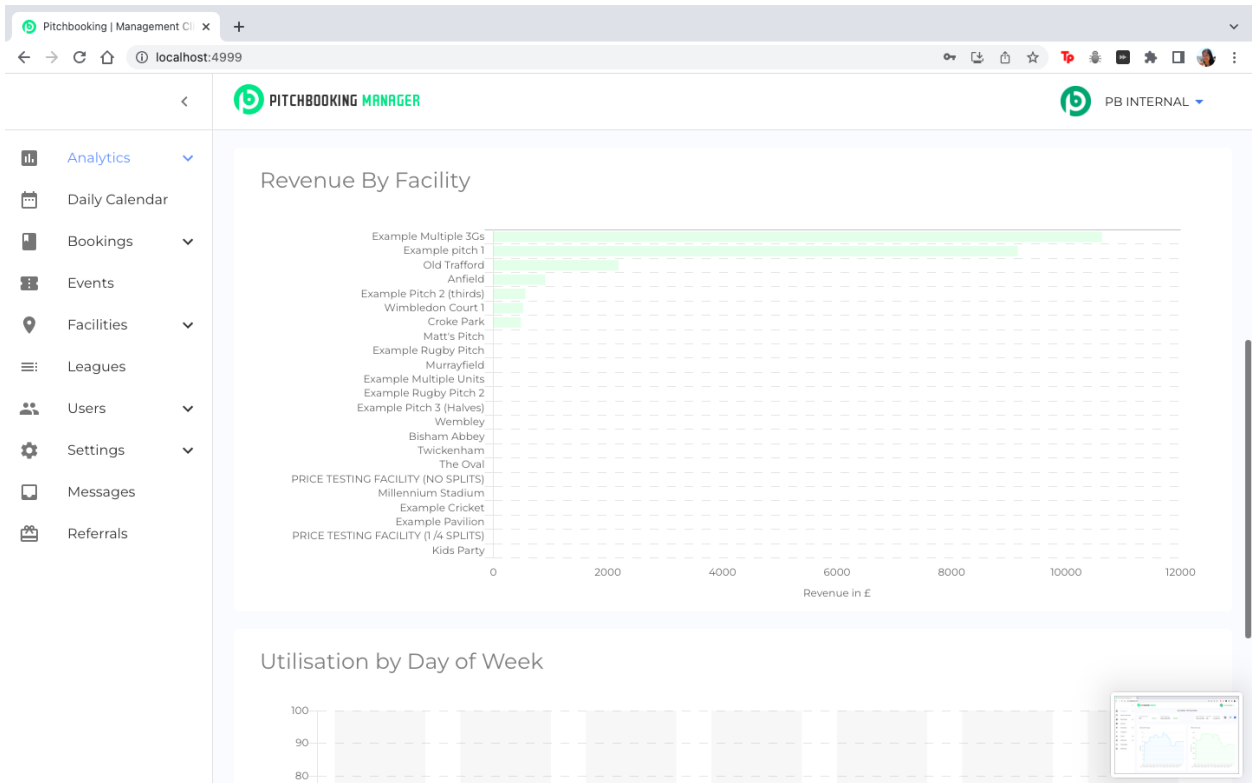
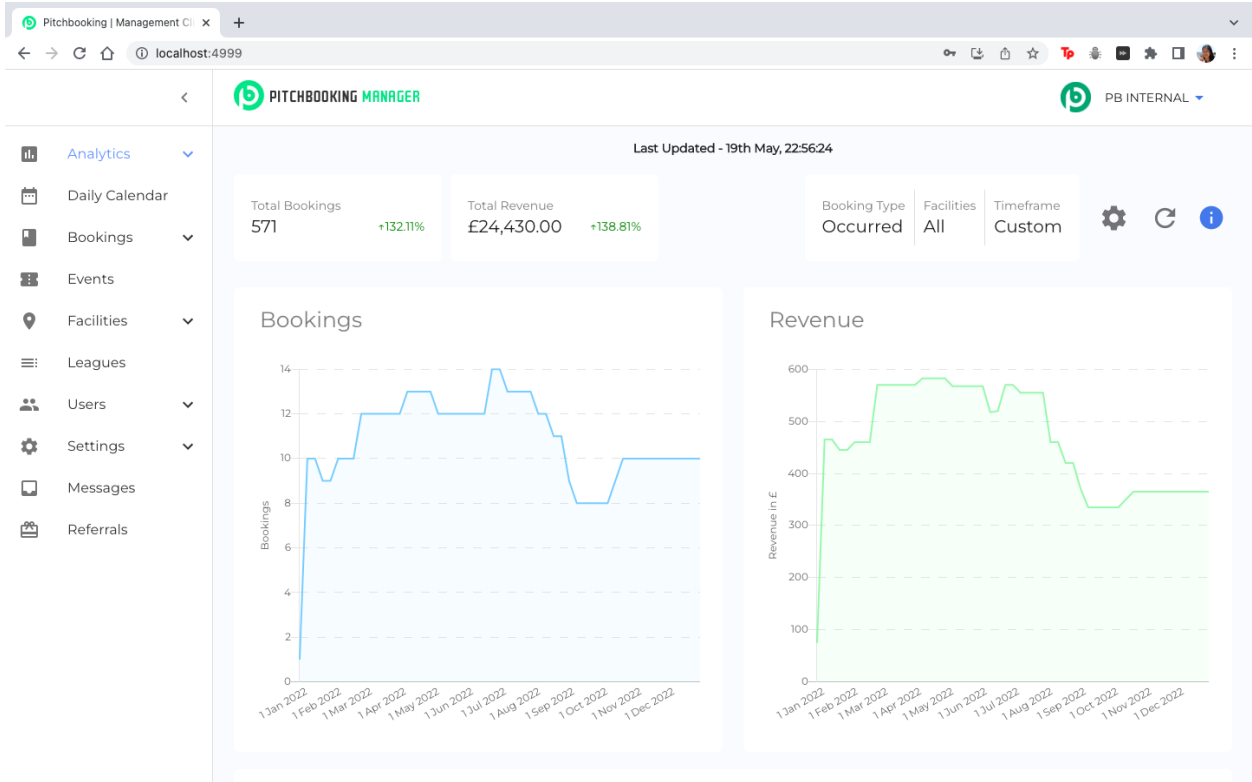


Figure 1: This figure illustrates the design thinking process from “Design Thinking” by Steven J. Bell



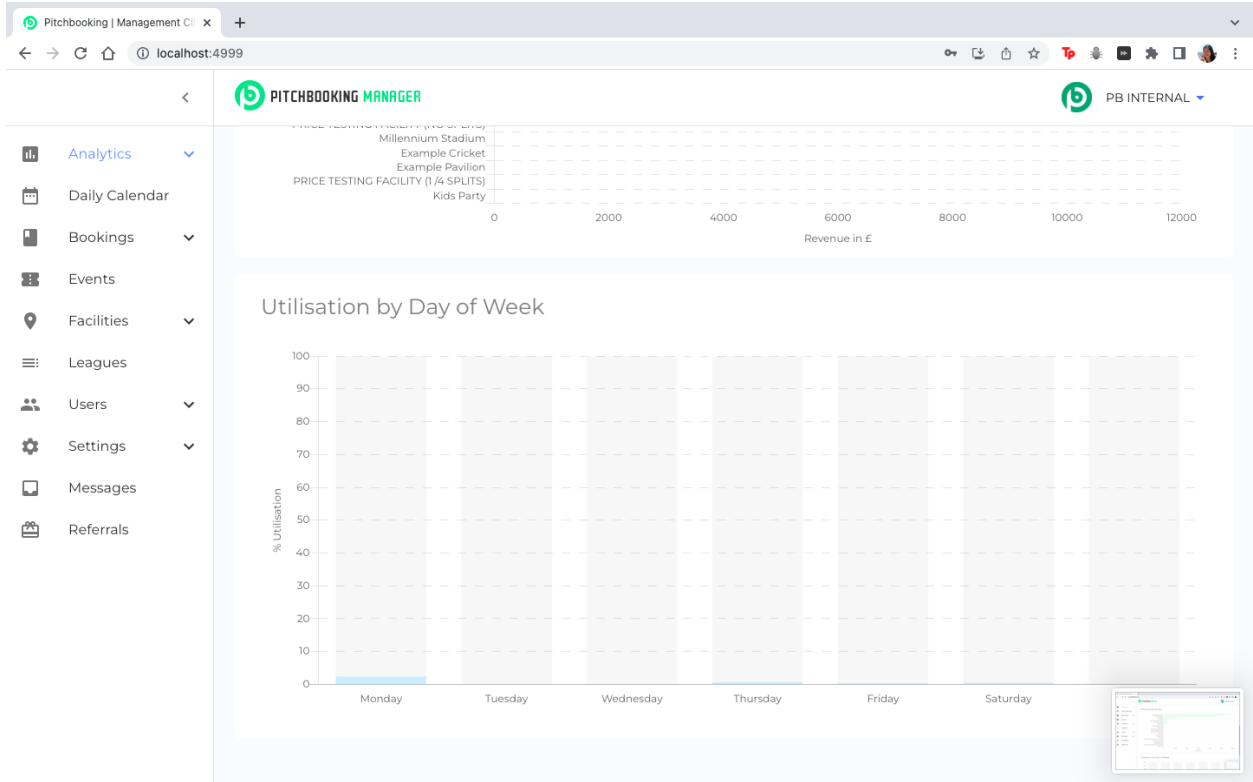
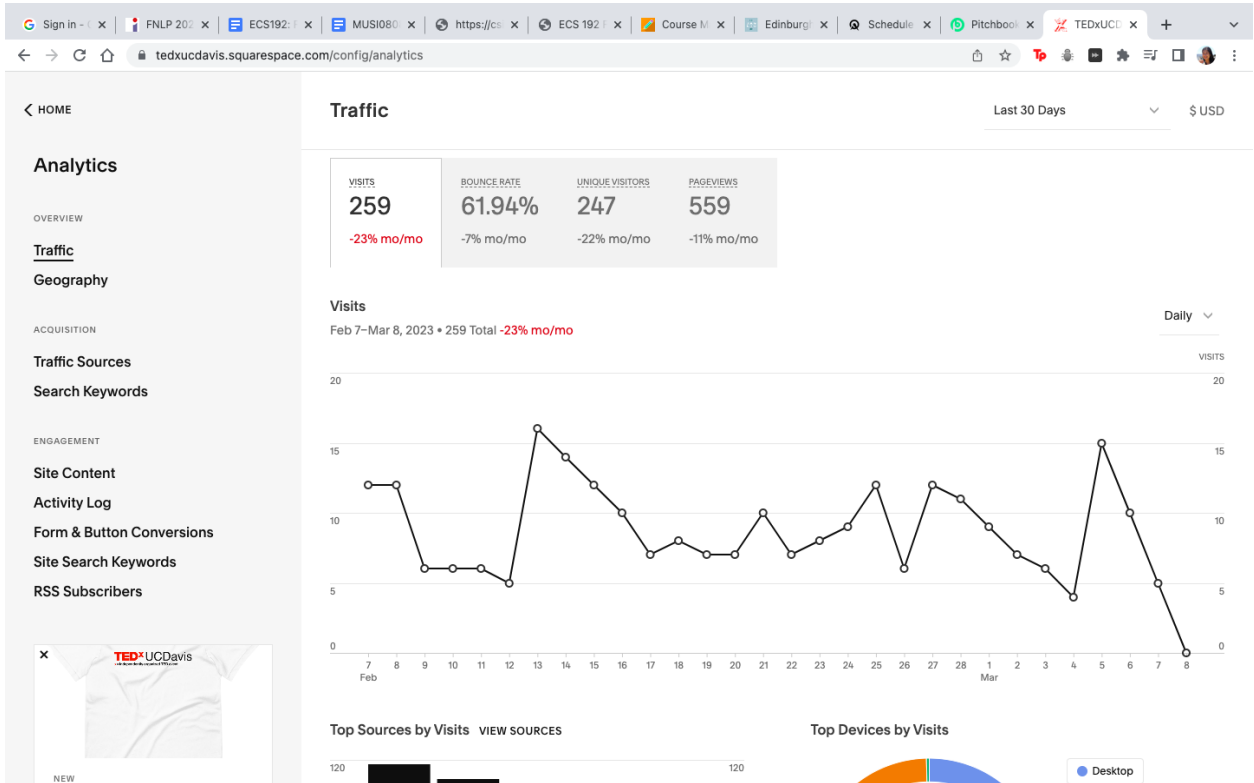
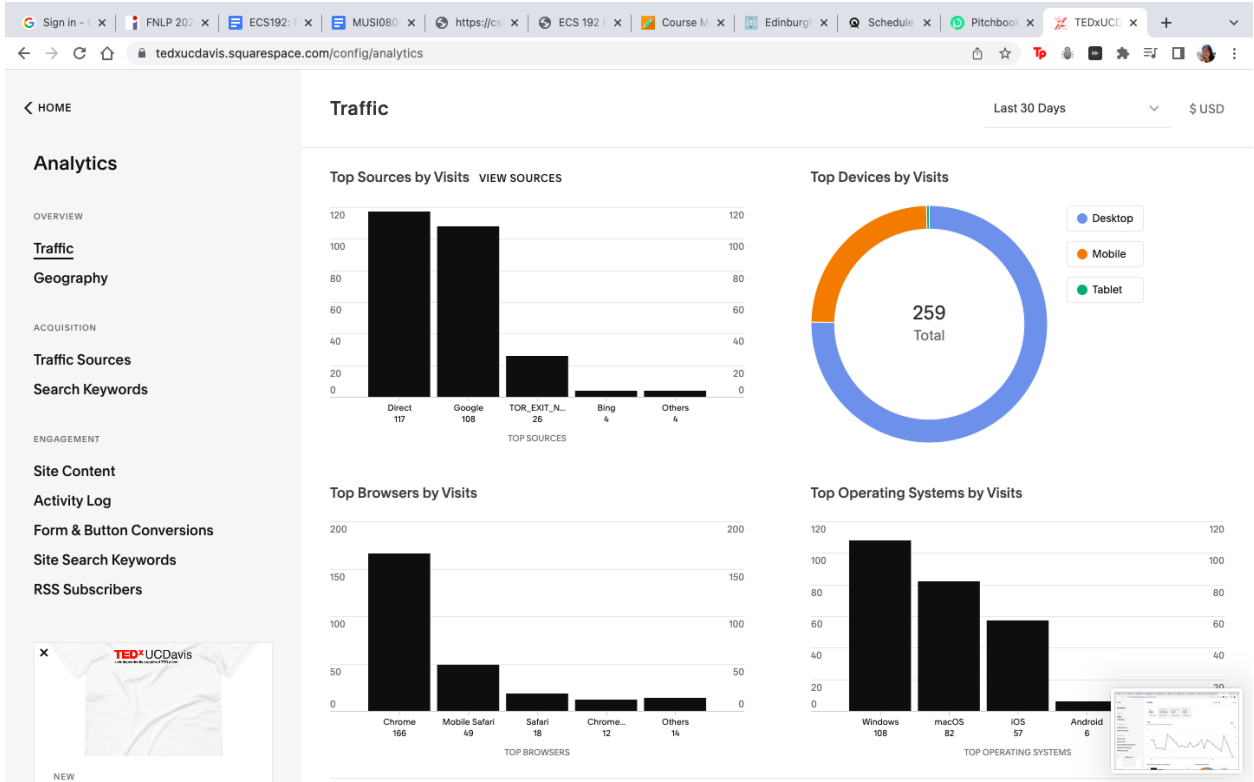
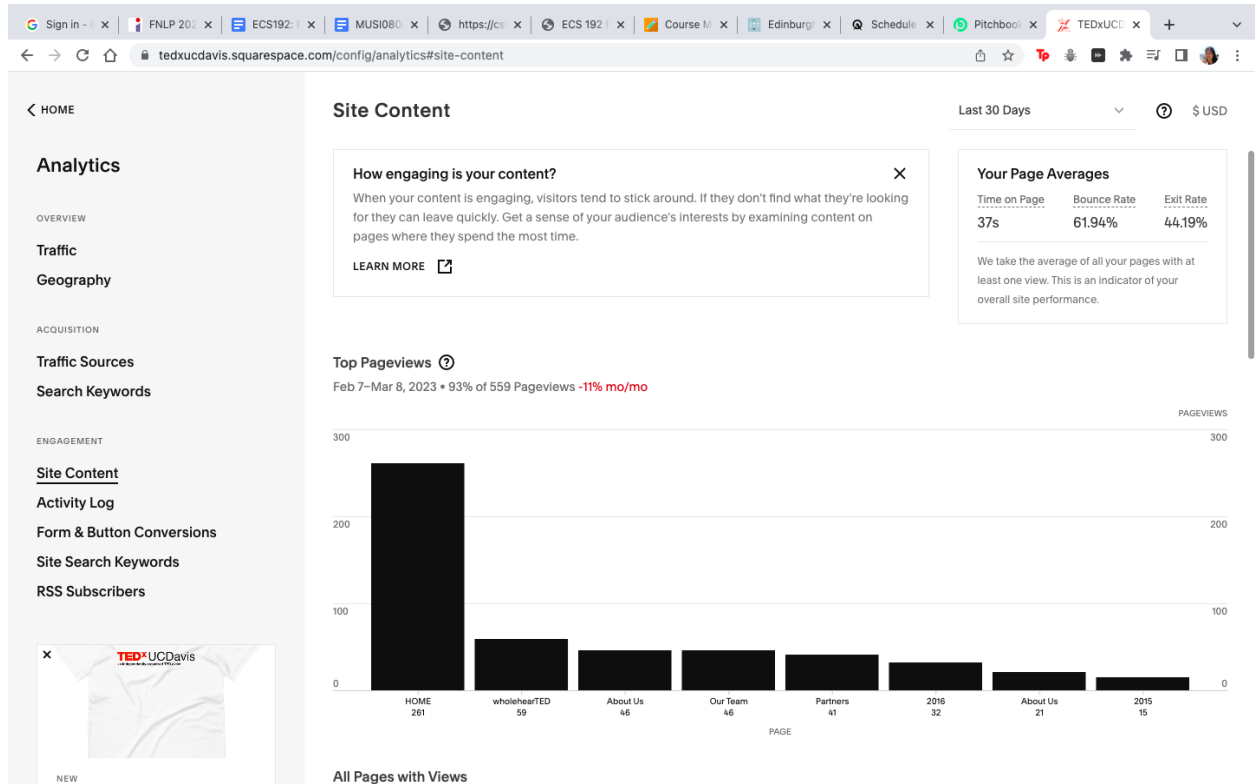


Figure 2: This illustrates what the Pitchbooking Facilities Analytics dashboard looks like which was created by a previous intern





Figure(s) 3: These figures illustrate examples of the analytics that I looked online for my research. This includes images from Squarespace.

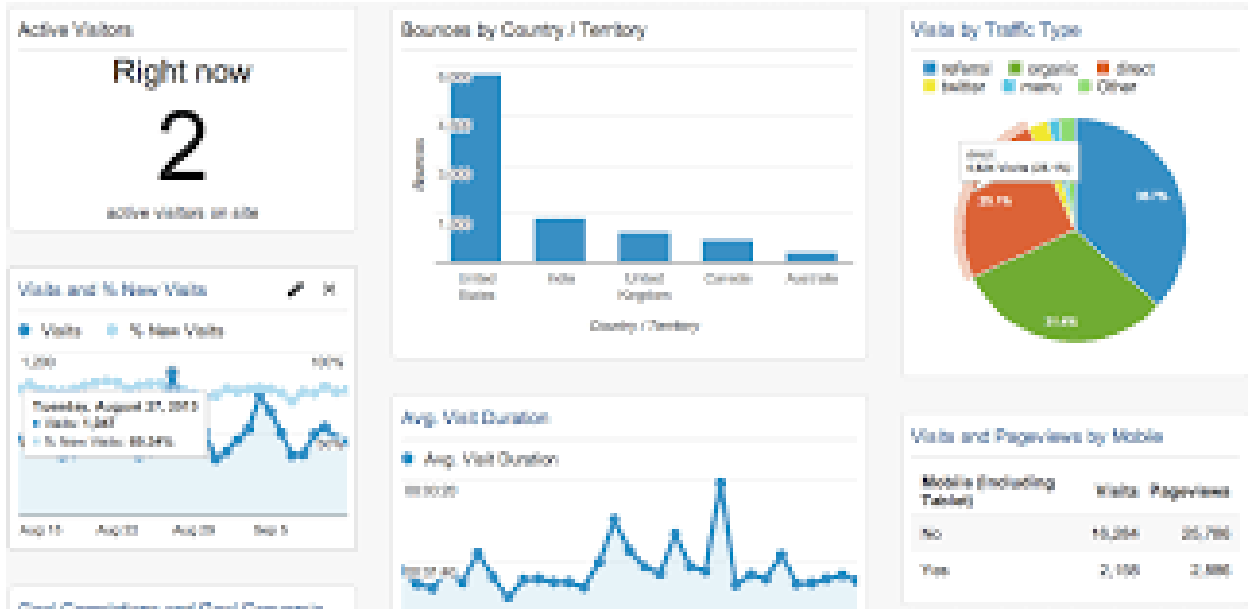
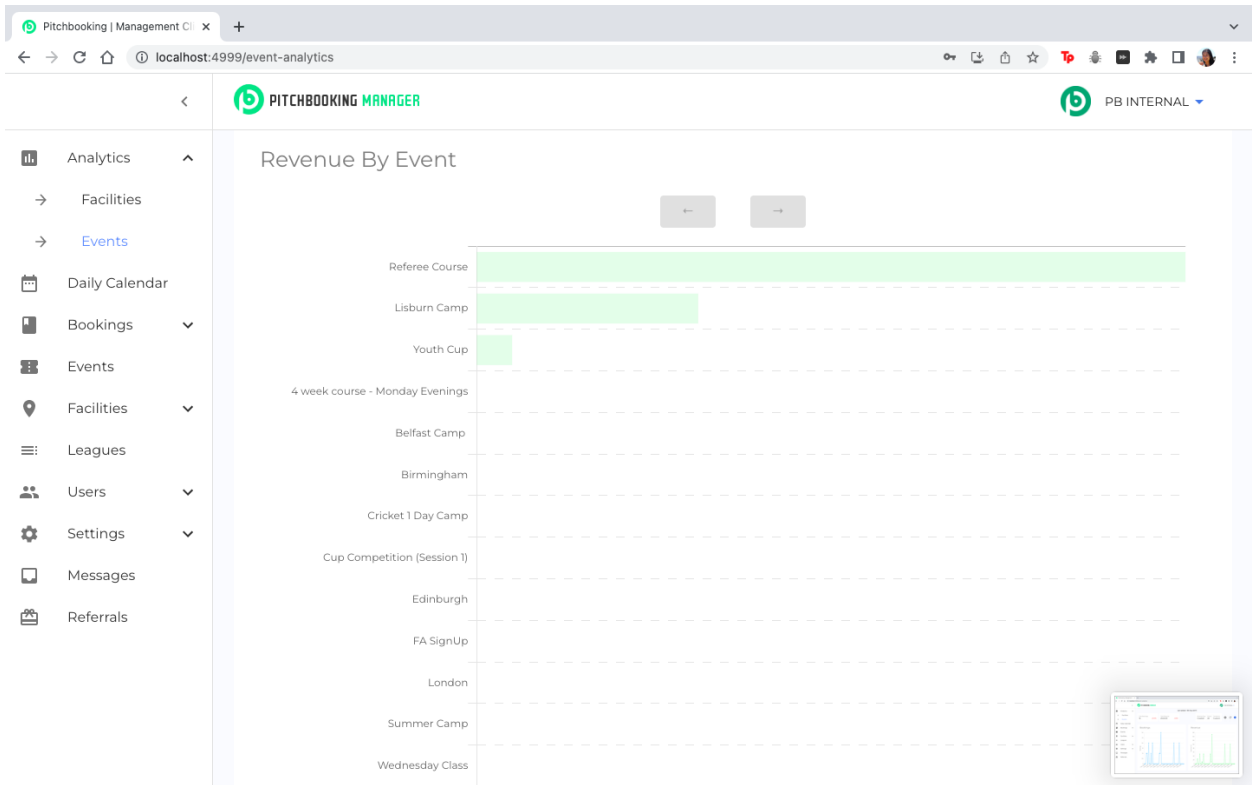
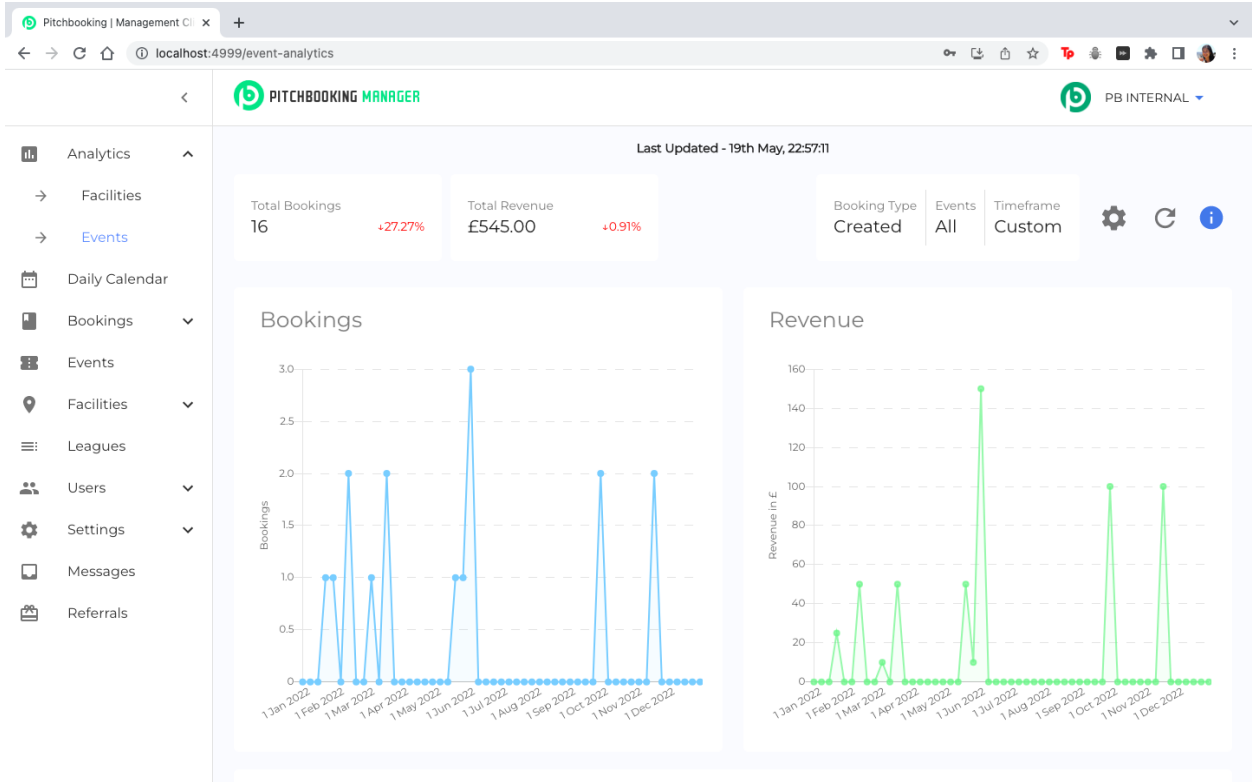


Figure 4: This figure illustrates the example of analytics from Google Analytics that inspired my usage of the pie chart.



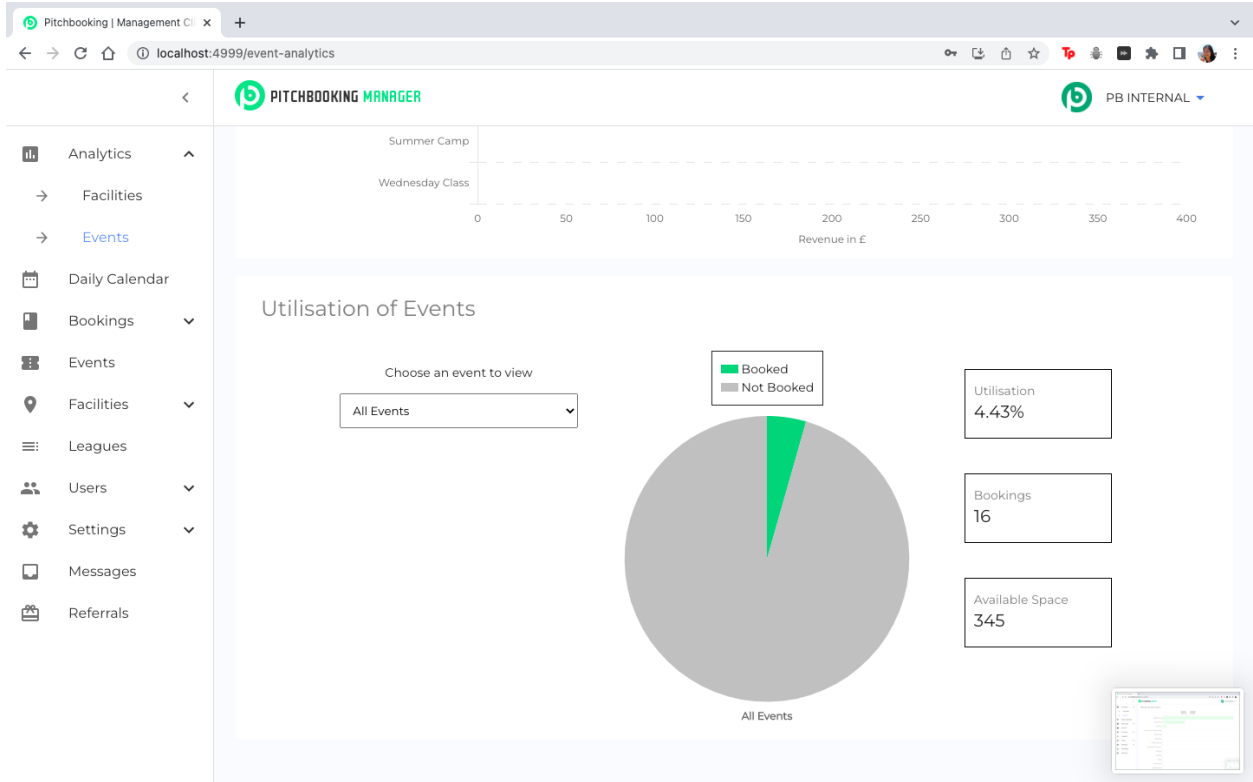


Figure 5: This illustrates the Pitchbooking Events Analytics dashboard looks like that was designed by Angelina Lim and Justin Cheng

When choosing a new product, how important is it to you that it incorporates design elements from past products? [Copy](#)

30 responses

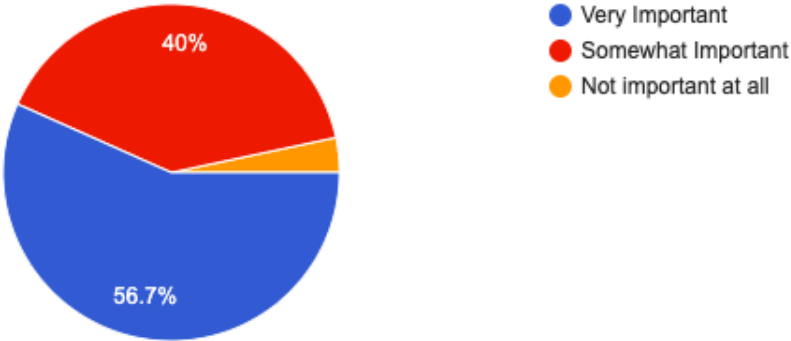


Figure 6a.

How much do your past experiences with products influence your current product preferences?

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30 responses

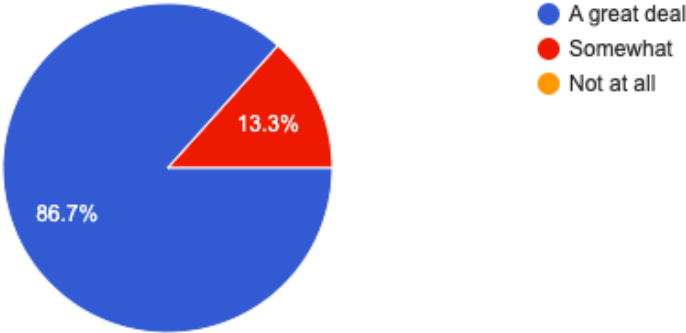


Figure 6b.

Do you think that companies should focus more on creating new, innovative products or building on past products to create something new?

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30 responses

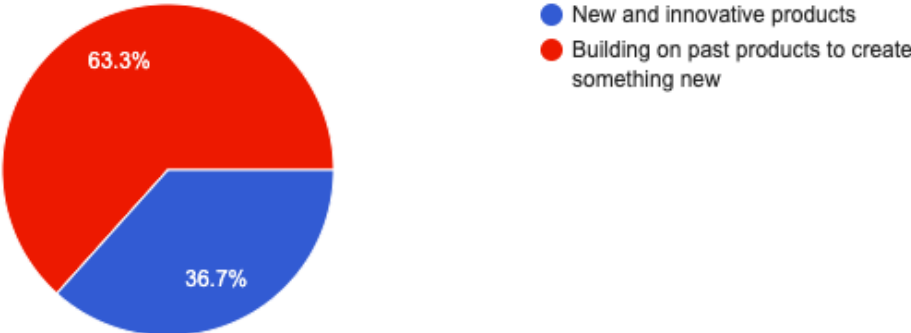


Figure 6c.

When choosing a new product, which of the following factors is most important to you?

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30 responses

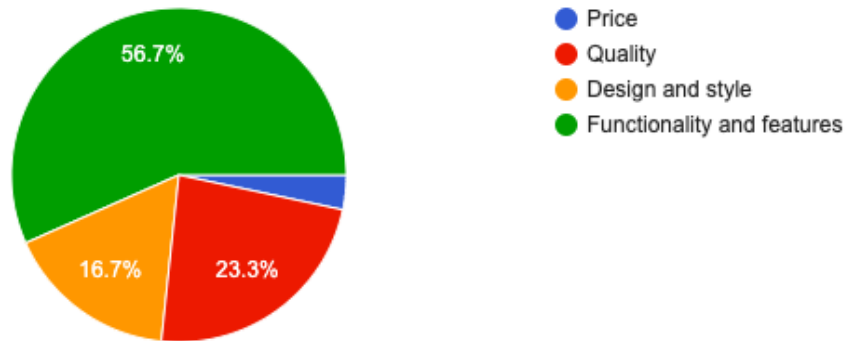


Figure 6d.

Figure 6: Market Research Data