



ISYS2160 ASSIGNMENT

ONLINE FASHION TRADING SYSTEM - OFITS

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I. Introduction to the Service

OFITS is an online marketplace and clothing reseller, which providing fashion items trading services, mainly in sneakers and streetwear.

With the development of the NBA, basketball has gradually become popular among the public. Basketball superstars are creating their legends while raising a burst of the upsurge in sneaker culture. More and more fans are chasing sneakers and the stories behind sneakers, so the combination of sneaker culture and hip-hop elements has been sought after by many young people. For those who want to buy trendy brands but are afraid of buying fakes and individual merchants who want to sell trendy brands but have no customers, OFITS is the platform they want.

OFITS has a unique C2B2C model. There are three main participants in the transaction: users (consumers), sellers (suppliers, individual sellers), and platforms. It acts as an online marketplace, facilitating transactions between consumers and sellers. Seller's products will be classified by brand, style, and size, and the platform will charge a processing fee based on the price of the product. Once the consumers confirm the purchase on the platform, the platform collects the processing fee and payment fees from the buyer. After seller sends the purchased items to the OFITS warehouse for inspection and verification, then the warehouse ships the authenticated product to the consumers (Milligan, 2019).

Also, OFITS provides a communication community for sneaker lovers. The topic discussion focused on sneakers, street fashion, and street culture. Users can share fashion outfits, sneaker stories, and opinions of fashion with specific tags.

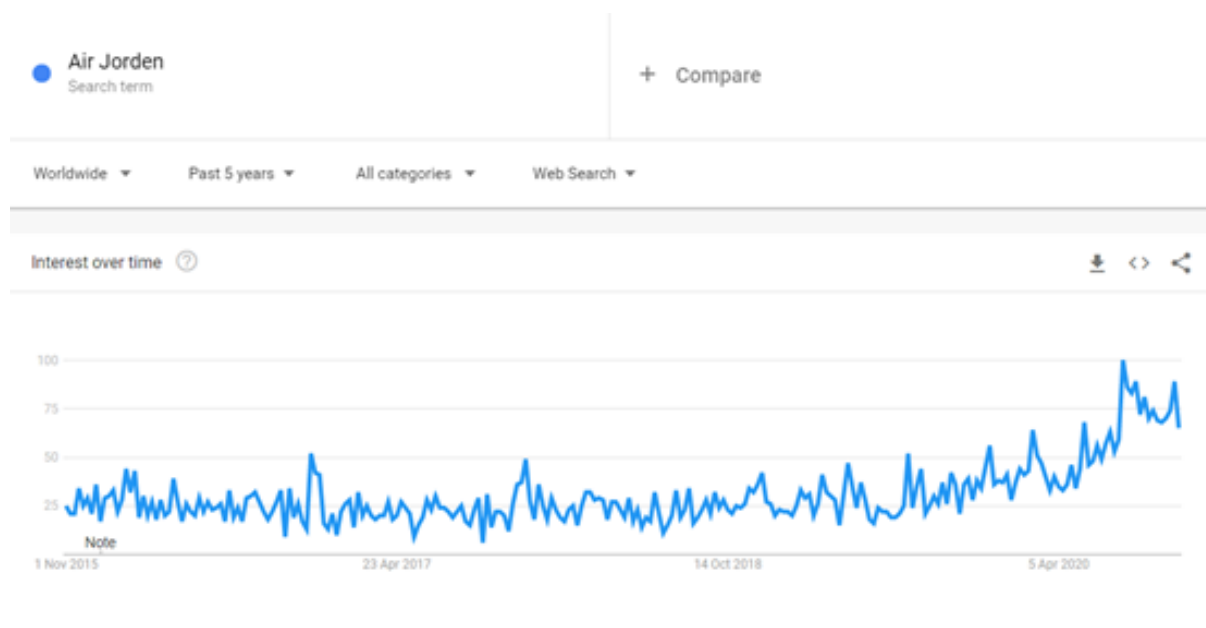
Because of OFITS' strict inspection and verification, fakes manufacturers and sellers will be suppressed in Australia, which will contribute to the economy of the Australian fashion industry and e-commerce industry. OFITS will also promote the Australian sneaker culture. Make more people know better about sneakers and streetwear through the communication platform.

II. Market Research

Nowadays, the biggest C2C e-commerce platform is eBay, with over 10.8 billion U.S. dollars annual revenue and 183 million active users worldwide in 2019. (J.Clement, 2020) eBay permits vendors to list the initial 50 items on the online market platform liberated from cost every month. After that eBay charges posting expenses on everything. Furthermore, eBay charges up to 10% commission on sale value pre-tax including shipping charges. Also, eBay offers two different ways for dealers to sell and purchasers to purchase a wide assortment of items. Get it Now and offering alternatives are made accessible to clients. In providing options, purchasers choose to offer the value they are willing to pay to purchase the item. Purchasers with the most noteworthy offering cost get the item, and in Buy it Now, choice vendor updates the item's cost. (Akshat Bansal)

Demand

However, products on eBay ranged from every area, daily necessities, electronic products, or even some unusual items like military hardware, ghosts, souls. While OFITS only focus on fashion brands. As millennials occupy the consumer market, the fashion culture they represent has also become popular. Taking Air Jordan, a fashion brand in basketball, as an example, more people searched Air Jordan on Google in recent five years. This means a fashion brand like Air Jordan attracts much more attention, especially in the past two years. According to Moriah Houser's research, adolescents form brand loyalties now and are a growing group of consumers. Millennials are willing to pay for the brand they like, and the community's nature determines that they will attract more newcomers to join. To sum it up, the demand for fashion brands would increase continuously as more and more millennials are taking a job and paying.



Market gap : authenticity

Even all C2C platforms take a series of policies and measures to make sure the transaction process is fair for both buyers and sellers, but the trust is still a real unsolved gap in C2C Commerce.

For buyers, the most they worry about is buying fake products, especially for the fashion brand as they are easy to counterfeit and hard to distinguish. According to [Trends in Trade in Counterfeit and Pirated Goods](#) in 2019, the value of imported fake goods worldwide topped \$509 billion based on 2016 customs seizure data, up from \$461 billion in 2013, the latter of which represents 2.5% of world trade. Even if platforms have payment protection and complaint systems, receiving fakers would cost buyers plenty of time as buyers have to provide evidence for the platform. For sellers, they may receive fake negative reviews. For example, buyers affirm the product is counterfeit though it is not. Although this may be cleared after investigating, sellers still suffer a bad influence.

To sum it up, the trust between sellers and buyers is not enough. However, OFITS with C2B2C could satisfy the market gap. Platform hires professional appreciators to distinguish the products. If it is fake, return to sellers, else delivery to buyers.

Opportunities for growth

As the pandemic in 2020, the economy would be depressed. However, this could be a good opportunity for the growth of fashion trading. Leonard Lauder, chairman emeritus of Estée Lauder, coined the term “lipstick effect” in 2001 to describe the beauty company’s rising lipstick sales during periods of financial distress. The rationale given for the effect was that cash-strapped consumers turn to small indulgences as pick-me-ups when they can not buy extravagant luxuries(Brown.,2020). So for the same reason, the demand for people buying fashion items would increase. For people who need money urgently in an economic downturn, OFITS provides a place for them to sell their stuff. In the coming future, users of OFITS would increase for both sellers and buyers.

III. Competitive Advantage

There is no such a platform as OFITS in Australia so far. Therefore, OFITS' main competitors are the sneaker collection stores such as Footlocker, JD sport, HYPE, and Platypus. Compared with these physical stores, OFITS is much more faster and convenient. Once the system receives the customer's order, the information sending system will send a message to remind the seller to ship the goods to the OFITS warehouse within 48 hours. When the warehouse takes delivery of goods, the sneaker appraiser will make inspection and verification for goods. If the verification is successful, the logistics system will automatically package and ship to the customer's home. Customers only need to stay at home to receive their favorite sneakers. Also, physical stores will only sell unique edition sneakers on specific sneaker release days. Customers can only get limited-edition sneakers by drawing lots. On OFITS, customers can buy these sneakers at any time, which limits the bargaining power of "sneakerhead".

Besides, foreign platforms such as StockX will also become OFITS's potential competitors. StockX has a C2B2C business model similar to OFITS. Its IS system has several subsystems: Bids and Ask System to manage Buyers' bids(buy) and sellers' asks(sell); Transaction System helps the transaction happens automatically when a bid and ask meet; Stock System to presents a sneakers Price chart by analyzing the price trend of each pair of sneaker("How StockX works", n.d.).

OFITS provides users a online community. Compared with analyzing sneaker price trends, understanding current fashion trends and customer preferences helps provide better services. The Analysis System combines with Decision Support Systems to classify the tags by analyzing the communication community's daily topic views to understand the popular fashion items of the season, using this data and the simulation results of Decision Support Systems to adjust the webpage (for example, placing popular fashion items in the most conspicuous position of the webpage), users can have a better experience.

For the authentication of sneakers, OFITS has a stricter authentication system. StockX authenticates sneakers manually, which does not guarantee 100% authenticity. In addition to manual identification, OFITS introduced an authentication system. Artificial intelligence uses algorithms to compare sneakers with genuine products in all directions. Provide double authentication for sneakers.

OFITS' Seller Review System will review the seller's past sales records. By connecting to the national credit system, review whether the seller has dishonest behavior and criminal records. Sellers with bad records will be prohibited from selling on OFITS.

IV. Business Intelligence

The OFITS has several Business Intelligence tools to analyze and solve semi-structured and unstructured problems, which are Decision Support Systems, Online Analytical Processing(OLAP), and Data Mining. Using them can help managers to analyze different dimensional problems and perspectives to help the organization pin down the latent customers, the changes that need to be made and the future trend, etc.

The OFITS would adopt the Decision Support Systems to perform the Sensitivity Analysis, What-if Analysis, and Goal-Seeking Analysis. The managers input the data and mathematical models they would like to use. The system can then do the simulations, optimizations, and forecasting. Finally, generate a report of analysis for managers to make decisions. For example, the manager wants to know if it is necessary to build more warehouses for storing products. He can use Decision Support Systems to support his decision using mathematical approaches.

Online Analytical Processing is another part of Business Intelligence used in the OFITS. It can analyze the specific value of a product in a certain period. For Instance, Managers can use OLAP to find out what is the most popular fashion item in the winter of last year. Then predict if it is the same this year. The OLAP's dimensions(Product type, region, time) are organized as hierarchies that can drill down or roll-up.

Data Mining is also used in the OFITS to help managers. Using Data Mining can predict the trends and behaviors and identify previously unknown patterns. It mainly estimates the lifetime value of a customer, the probability that someone will respond to the marketing promotion by dividing the customers by age, income levels, etc. The data are gathered from the previous sales, the communication community for sneakers, and the Internet. The main customers are teenagers and adults below the 40s. And it helps OFITS to customize what products are going to show on the main page, the bundling of products and the promotions, etc.

The managers can then present to their superiors by using the dashboard, which can produce several reports from a different point of view. The dashboard can be seen as an overall integration of the various Business Intelligence tools, which can report using other ways.

V. Social Computing

OFITS will build a social platform for customers. Each user could post a short video or some pictures with a paragraph of text to share the fashion products they use. Others who have seen this post could add it to my favorites and click the like button if they love the product. Furthermore, if people want to know more information about the product shared, they could send the message to the poster. If a user thinks the poster has good taste, they could subscribe to the channel to follow their updates. In this platform, users could share their favorite to get more attention while finding something cool from others' sharing.

The platform will be divided into several parts, such as clothes, gym shoes, cosmetics, and so on. Customers could choose any of them to join the community according to their interests. Apart from that, OFITS also has a live section for users who want to sell their products. In the live session, they could introduce more specific and show more details about the product.

However, it is hard to set up a complete and mature social platform from the beginning. In that case, OFITS allows users to use other social media such as Facebook, Twitter to create an account for sign up. Once it signs up, the account will automatically follow users' friend lists to make the user feel more familiar. Besides, once users post, an additional option will be offered to share on Facebook or Twitter at the same time. If clicked, a video or pictures with OFITS's watermark will be produced automatically and then jump to other social media. Doing so may increase the number of users for OFITS.

Here are the following benefits:

1. Providing a community environment for enthusiasts to communicate where they look for people with the same hobbies and tastes, which could increase user loyalty and stickiness.
2. Users sharing products with each other may increase platform transaction volume indirectly.
3. Increasing the number of users as users sharing in other social media. Most posts are selfies with fashion brand clothes or shoes. In that case, the possibility of people sharing on other social platforms will not be too low.

Here are the potential stakeholders:

1. Fashion brands. In OFITS's social platform, Users mainly share their usual fashion wear and some experience, which is equivalent to advertising these brands.
2. Users. OFITS is not only a tool for trading, with the social platform, it is also a community for those who really love fashion culture to meet souls with the same love.

VI. Privacy and trust

The OFITS can protect both sellers' and buyers' information excellently. Only the platform knows their security information. Buyers and sellers won't know each other's identity. They will not get in touch during the whole transaction. The OFITS will send the item directly to the seller after its authentication. When the sellers confirm that they have received the item and are satisfied with it. The OFITS then transfers the payment to the sellers. Otherwise, the item should be returned to the OFITS, and the money would be refunded, which protects both buyer and seller's privileges. Personal information such as phone numbers, address details, and names are all encrypted and stored in a relational database such as SQL. And the information about payment methods will be partly stored. For instance, The card number will be stored in the database, but the CSV and the password won't be found in the database. The OFITS would only confirm with the third trusted parties if the password is correct or not.

To gain the user's authority, the OFITS would ask for users authorization when they initially install the App. The OFITS would also cooperate with the user's device for a safer environment. For example, when the user wants to place an order in the App and fill the payment method, the OFITS would ask the user's device for checking safety by using Touch ID or Face ID to ensure the user does want to perform certain actions but not hacked and remotely controlled by others. The OFITS would also ask for CAPTCHA to identify if is the bot making an order. Which can avoid zombies controlled by the hackers that want to make the system crash.

On the other hand, the OFITS would also hire a security team to protect the system from malicious attacking. The team would always fix bugs that might cause attacks and upgrade the system routinely. OFITS also have a set of protocols to analyze and evaluate the risk of being attacked. Including the risk management process. Which will perform the risk analysis, risk mitigation and controls evaluations. By doing this process, OFITS can minimize and detect any risks.

Personal perspective and recommendation

Member A: Nowadays, privacy is becoming more and more sensitive to both customers and sellers. Especially under today's cyber environment. It is tough to say that people's privacy is being secured well since hacking happens every minute. While customers are taking care of their privacy. Hackers can always find bugs in the program and perform attacks. So the programmers are still trying to develop new techniques to prevent hacking. When sharing data with others, the data needs to be encrypted with a public key and private key to try to secure the information inside.

The recommendation is using the latest developed encryptions method instead of the old one to avoid hacker hacking using the old method. The blockchain is one of the right ways since it is tough to modify and efficiently provide the record.

Member B: Although protecting privacy has become critical in the information age, it has also become more and more difficult because of high-tech searching tools and somebody's strong reasoning ability. In Tokyo, an avid fan found an idol's personal address through the sight reflected in the eyes of her selfie. We can protect customers' privacy like name, phone number through technology while it is impossible to prevent users from sharing information

with the public though it seems harmless. Encryption technology can only increase the difficulty of obtaining other information, but it cannot stop it. The recommendation is to tell each user to protect their personal details when registering. When posting videos or taking selfies, carefully check whether personal information is leaked.

Member C: Many websites now eavesdrop on users' mobile phones on the grounds of improving user experience. Take my real experience as an example. I discussed a fashion brand on WeChat with my friend a couple of days ago. When I was using Taobao, I found that the system automatically pushed me some clothes of this brand, and my Tik Tok pushed me some relevant video. It seems to improve my experience through big data analysis, but the website obtained my personal information without my consent. As users, we do not know whether the website uses our personal data for other purposes (for example, selling personal information to other organizations).

Mobile phone providers should make technical improvements in preventing eavesdropping, protecting user data and information, and not obtaining user information without the user's consent. Websites and apps should strictly comply with industry standards and the Online Privacy Protection Act.

The recommendation is that all regions should improve the Online Privacy Protection Act. For example, if the mobile phone provider does not provide customers with information protection, obtain user information without the user's consent, use customer information for other purposes, etc. These actions will be regarded as a violation of the act, and the company will be punished.

VII. Conclusion

All in all, OFITS is a well developed system that possesses innovation, integrity, security and authority. It creates a new form of selling with authentication which can provide the best price of the items among sellers with 100% authenticity. The 6 main parts of the report all demonstrate that OFITS cannot work without Information Systems. Using the Information Systems can find the advantages and the decisions that need to be made for the OFITS. And it increases efficiency, accuracy of the whole system. Which creates a great opportunity for a business platform to grow and prosper.

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