

온라인 소매업체를 위한 새로운 전자상거래 플랫폼 설계 및 구현에 관한 연구

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Design and Implementation of a New e-Commerce Platform for Online Retailers

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Abstract Nowadays, everything is being computerized from small daily tasks to the very big stuff that cannot be done by humans. Among of them, e-commerce is reshaping many aspects of business and social life, and its influence is increasing every year. In the past, people used to go to the markets to do shopping by themselves in person. However, nowadays, we are the busiest generation ever and people, especially young generations, often want more spare time instead of going and do shopping or trade by ourselves in person. Besides, recently, as the “reseller” craze for buying and selling goods is blowing, awareness of second-hand transactions is becoming more common, and users' needs are also increasing. Accordingly, due to the environmental characteristics of the accessible online market, it provides related services in open markets or portals, in addition to second-hand products specialized platforms. However, most open markets or portals take the form of supporting intermediary services for second-hand transactions, and the portion of second-hand products in the overall scale is very small. In this paper, we design and implement a new e-commerce platform to online retailing which sells or buys online simultaneously, unlike traditional open market platforms.

• Key Words : Open market, retail, e-commerce, second-hand products, C2C

I . Introduction

Consumer sentiment shrank dramatically around the world due to the prolonged Corona-19 Pandemic. But there are always exceptions. Recently, second-hand transactions are reorganizing the e-commerce market. Second-hand means ‘already used or old.’ Except for ‘antiques,’ which increase in value over time, second-hand products have a strong image of ‘old things.’ However, as the demand for online shopping surged with the development of high-speed Internet and the spread of smartphones, second-hand products began to be recognized as a type of ‘reasonable consumption.’ Currently, various second-hand products specialized platforms such as ‘Joonggonara’, ‘Bungaejangter’, and ‘Dangeun Market’ account for most of the domestic used goods trading. In addition, due to the environmental characteristics of the online market with good accessibility, it provides related services in open markets or portals in addition to second-hand products specialized platforms. In fact, Korea’s largest portal Naver is operating ‘Naver Shopping’ which is Korea’s largest e-commerce platform. After the continual reorganization, the ‘shopping window’ that provides products from offline stores nationwide online was put to the fore. It stands

for O2O (Online to Offline) platform connecting offline and online, but there is no separate second-hand product transaction category. However, if the user searches for the keyword of the product name and ‘second-hand’ together, the condition option of ‘second-hand product’ is applied. While consumers who are looking for second-hand products have the advantage of being able to find intuitive products through search, the benefits such as discounts do not apply to all products. Other major open markets also classified second-hand products into separate categories. Auction placed ‘Used Market’ on the rightmost side of the main service menu on the first screen. The sales method was divided into ‘auction’ and ‘immediate purchase’ according to the auction’s service characteristics. Likewise, related services are provided in the open market, but the share of total sales is small. However, recently, awareness of second-hand transactions is becoming more common, such as the “reseller” craze that buys and sells goods is blowing, so, they kept open the possibility by open only a minimum number of channels as related categories. In addition, the menu UI (User Interface) on the homepage of each major open market also has just only a difference in placement, and it is difficult to find the part that differentiates respectively. Most of all, since the search is mainly used for second-hand products

transactions, there was no significant difference in accessibility. Moreover, since they are open markets, second-hand products account for a small portion of the total product size. Accordingly, consumers have the inconvenience of using in parallel with second-hand products specialized platforms such as ‘Joonggonara’, ‘Bungaegangter’, and ‘Dangeun Market’ to trade second-hand products. Thus, in this paper, we designed and developed a new e-commerce platform that combines an open market and second-hand products specialized platform.

II. Implementation of the proposed platform

The proposed e-commerce platform was implemented using Python, Django, and MySQL, and to protect user information, an authentication procedure using cryptography was added in the process of storing user information and paying after commodity transaction. Also, it was implemented by separating the administrator function and the user function. The biggest benefit of this platform, customers can buy and sell at the same time without a complicated procedure. In Fig. 1 shows the main page and Fig. 2 and 3 illustrate the process of selling and buying.

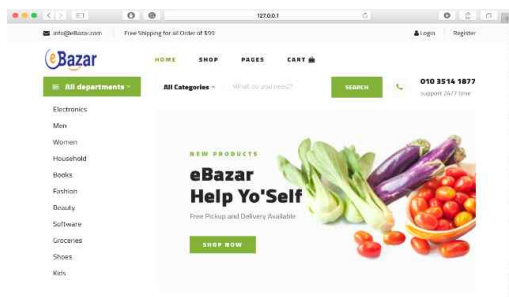


Fig. 1 Main Page

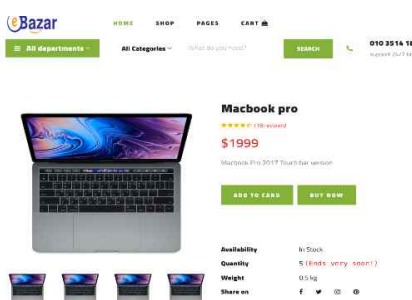


Fig. 2 Buy Page

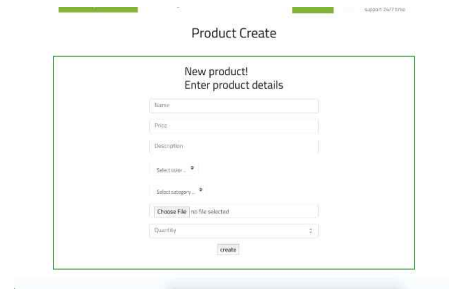


Fig. 3 Sell Page

III. Conclusion

People often say that the more the economy is in recession, the more second-hand product transactions are. Since except for ‘antiques,’ which increase in value over time, second-hand products have a strong image of ‘old things or already used.’ However, recently second-hand product transactions are gradually evolving and create new added value. The traditional flea market, where people met and exchanged goods offline, is moving to online direct transactions and changing to a new platform. Accordingly, a variety of second-hand product specialized platforms have appeared, and its related services are also provided in open markets and portals, due to the environmental characteristics of the accessible online market. However, this is an extremely limited part of the overall service, and second-hand products account for a small portion of the total product size. Most of all, since the search is mainly used for second-hand products transactions, there was no significant difference in accessibility. Accordingly, consumers have been suffering from use in parallel with second-hand products specialized platforms to trade second-hand products. Thus, in this paper, we designed and developed a new e-commerce platform that combines an open market and second-hand products specialized platform.

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REFERENCES

- [1] Yu-Gyeong Heo and Mikyeong Moon, “System for Generating Interactive Animation for children’s Dental to Relax Tensions,” Journal of the Institute of Convergence Signal Processing, vol. 20, no.1, pp.37-44, 2019.