



## Socio-Demographic Factors Influencing the Use of Food Delivery Applications (FDA): An Empirical Study

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### ABSTRACT

**Purpose:** The paper aims to analyze the consumer profile and the impact of sociodemographic factors on reasons to use Food Delivery Applications (FDA) in an emerging economy, Bangladesh.

**Methodology:** The study used a descriptive approach through an online survey of 168 consumers to identify reasons for using the FDA and favorite features of the FDA services. The chi-square test has been applied to the data.

**Findings:** Results highlight an association of gender and monthly income with favorite features. Occupation is associated with reasons to use FDAs. Results suggest that people who like to eat out at restaurants tend to order more frequently with food delivery apps.

**Practical Implications:** The study will help marketers, restaurant owners, and FDA service providers to better segment their customers and cater to different segments' needs. FDA service providers can personalize communication for each segment because people respond better when their needs and interests are specifically addressed.

**Originality/Value:** This study contributes to the literature as one of the first attempts to measure the impact of sociodemographic factors on reasons to use FDAs and consumers' favorite features.

**Limitations:** The findings of this study may not be generalized due to the small sample size of 168 participants and the convenience sampling method employed. However, the study provides valuable initial insights into the impact of sociodemographic factors on the reasons for using FDAs and consumers' favorite features in the growing food delivery marketplace.

### 1. Introduction

Bangladesh, an economy with robust growth, has a proven track record of prosperity and development despite heightened global instability. Rapid economic growth has been underpinned over the past 20 years by a high demographic dividend, substantial ready-made garment (RMG) exports, resilient remittance inflows, and stable macroeconomic circumstances. Sustainable economic growth has resulted in increased participation of women and a growing urban population with dual-income families who are scarce of time and need support for managing household work and cooking (Islam, 2019; Kader, 2020). COVID-19 came as one of the biggest shocks in history, affecting millions and millions of people worldwide. With people staying home and traditional shopping becoming difficult and risky, businesses have been affected severely, and most economies have seen a downward trend.

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The pandemic has forced people to experience a dramatic shift from physical to online shopping. Digital technology and e-commerce, in particular, have allowed businesses to reach out to their customers and operate on a limited scale. E-commerce has been at the forefront in most countries since the world entered lockdown. According to McAdams (2020), online revenue growth has seen a rapid uplift since the quarantine period and is expected to rise in the post-COVID-19 periods. Online delivery services, one of the promising e-commerce segments, require more insight from researchers to be understood well. Information technology has allowed people to bring different sectors and services within the palm of the people. Information searching has become less costly, and consumers can easily access new markets and compare prices before purchasing (Janson & Cecez-Kecmanovic, 2005). While several studies have examined the online shopping behavior of consumers, there is a lack of research specifically focusing on the reasons consumers choose food delivery applications (FDA) and their favorite features of FDA. This study aims to fill this research gap by investigating the associations between sociodemographic characteristics and the reasons for using FDA, as well as the favorite features of FDA among consumers. By exploring these factors, the study seeks to provide insights into the consumer behavior of FDA services, allowing academicians, marketers, and FDA service providers to better understand consumers' needs, segment the market effectively, and enhance the quality of life for consumers. Additionally, the empirical findings will contribute to the existing knowledge of consumer behavior and the online food delivery industry.

Therefore, the research addresses the following questions:

1. What associations, if any, do sociodemographic characteristics have with reasons consumers use food delivery applications?
2. What associations, if any, do sociodemographic characteristics have with favorite features of food delivery applications?

This research, which draws on food-related lifestyles, seeks to examine FDA consumer behavior empirically. Thus, the study will help academicians, marketers, and FDA service providers identify consumers' needs, segment the market better, and offer more excellent value to increase the quality of life. The empirical study will also contribute to the knowledge of consumer behavior and the online food delivery industry.

## **2. Literature Review**

### **2.1 Online Food Delivery Service and Food Delivery Applications**

Online food delivery (OFD) service involves the process of placing the order from the customers through the interface of the delivery service providers or Food Delivery Applications (FDA) to the restaurants and delivering the food or takeout at the desired location of the customer (Vinaik et al., 2019). OFD companies are not in charge of food preparation but are responsible for providing order services, payment, and monitoring of the process (Pigatto et al., 2017) through food delivery applications. Consumers prefer ordering through FDA because of the convenience, usage, usefulness, and greater options and comparability of products (Tomacruz & Flor, 2018; Saarijärvi et al., 2014; Kimes, 2011a; Littler & Melanthiou, 2006). The needs of urban dwellers are met through FDA, which places their orders online and delivers within a short time (Kedah et al., 2015). Changes in urban lifestyle and higher family income have created an inclination towards eating out, which previously was viewed as time-consuming and costly (Bezerra et al., 2013; Machado & Pigatto, 2015). This eating out has resulted in the sprouting of restaurants, which serve the dual purpose of relaxation and entertainment in the urban dwellers' lifestyles. With the rapid growth in the number of restaurants, the food delivery platforms saw an opportunity to connect restaurants with customers from their homes or workplace and allow the customers to enjoy the ease and convenience of ordering online by eliminating the adverse effects of bad traffic and weather (Ha, 2013).

Some research has been carried out in Bangladesh, India, and Malaysia, focusing on identifying the factors critical to the consumers of OFD services. Saad (2020) investigated the factors affecting consumer choices in Bangladesh using the OFD platform. Vinaik et al. (2019) studied the viable

factors consumers consider while ordering food and the factors based on which food apps can be compared. Chandrasekhar et al. (2019) found that consumers in India mostly prefer distinctiveness concerning price, quality, and delivery. Das (2018) compared consumers' perceptions of online food ordering and delivery services. Sethu and Saini (2016) found that food purchasing services help students in India better manage time by conveniently providing access to their desired food. Kedah et al. (2015), Chai and Yat (2019), and Daud and Yoong (2019) studied the relationship of antecedents with behavioral intent towards OFD services among Malaysian consumers. Rahman et al. (2020) investigated the inter-dynamics of young consumers' information use, information adoption, motivation, and restaurant food purchase intention online. Annaraud and Berezina (2020) conducted a study to identify customer intentions to use OFD services by evaluating satisfaction, food quality, and OFD service quality. Research has yet to explore the spread of chatbots into the food service delivery sector and their impact on the customer's experience. The study by De Cicco et al. (2020) addresses the implications of chatbot interaction styles for younger consumers using this channel for conversational online food delivery services. Gao et al. (2020) analyzed the impact of COVID-19 on consumers' online food purchase behavior in the short term.

## 2.2 The Impact of Sociodemographic Factors

Socio-demographics is one of the many segmentation variables academicians and practitioners use to discuss customer food-buying behavior in the food domain. (Gao et. al, 2020; Tomacruz & Flor, 2018). Recent studies also suggest that demographic distribution has proven to be one of the critical indicators of e-commerce growth among the youth segment (Deshmukh et al., 2013; Mata & Quesada, 2014; Sharma & Mishra, 2012)

Previous research indicates that age is essential in online shopping preferences (Alqahtani et al., 2018; Punj, 2011; Haver, 2008; Zhang, 2009; Wan et al., 2012). Gao et al. (2020) suggested that the elderly who are unfamiliar with smartphones or the Internet deserve more attention from the government and the public to get acquainted with online food ordering during COVID-19 and post-COVID-19. Thus, the following hypotheses have been developed:

**H1:** Age has a significant association with reasons to order online

**H2:** Age has a significant association with favorite features of FDA

Marketers have recognized a difference in purchase behavior based on gender (Wan et al., 2012; Hernández et al., 2011). Mitchell and Walsh (2004) state that males and females have different needs for products, and their ways of liking and obtaining these also differ. Bhatnagar et al. (2000) men and women differ in online shopping depending on the product type: women tend to buy food, clothing, and beverages more than men, whereas men tend to buy hardware, software, and home electronics more than women.

**H3:** Gender has a significant association with reasons to order online

**H4:** Gender has a significant association with favorite features of the FDA

Studies have shown that people who worked in computer-related fields were more likely to have purchasing intentions as compared to those who did not work in such a field (Van Dijk et al., 2005; Teo, 1998). Wu (2003) found that consumer demographic, including gender, age, education, occupation, and income, had a significant relation with the attitude toward online shopping. (Baubonienė & Gulevičiūtė, 2015) suggested that career advancement and the motive to build marital partnerships induce one toward online shopping. Therefore, the study proposes the following hypotheses:

**H5:** Occupation has a significant association with reasons to order online

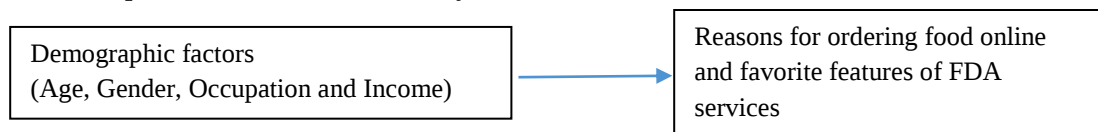
**H6:** Occupation has a significant association with favorite features of the FDA

The demographic variable, income, is another characteristic that has attracted considerable research attention in the field of technology acceptance (Serenko et al., 2006; Allard et al., 2009; Shin, 2009) and online shopping (Brown et al., 2003; Cook et al., 2002; Forsythe & Shi, 2003). Mehrotra et al. (2019) showed that the income of a consumer impact online shopping: the more income consumers have, the more online shopping the customer is engaged in. Perceptions of self-efficacy, ease of use, and usefulness is associated with income due to the ability to withstand possible financial losses (Hernández et al., 2011). It is thus interesting to see the impact of income on the behavior of online food delivery consumers.

**H7:** Income has a significant association with reasons to order online

**H8:** Income has a significant association with favorite features of the FDA

### 2.3 Conceptual Framework of the Study



**Figure 1**

*Conceptual Framework*

## 3. Method

### 3.1 Study Design

This study employed a descriptive research approach to analyze the consumer profile and the impact of sociodemographic factors on the reasons for using Food Delivery Applications (FDA) in Bangladesh.

### 3.2 Sample Size and Sampling Technique

The primary data for this study were collected through an online survey. A total of 168 consumers who had prior experience with online food ordering and delivery were selected as participants. Convenience sampling technique was used to select respondents due to the nature of the study and the limited resources available. Although convenience sampling does not allow for generalization of the results, it is commonly used in research to gain initial insights (Saad, 2020; Paluri & Mehra, 2016; Skowronek & Duerr, 2009). Respondents were selected from different social media networks and groups, and participation was voluntary. The researchers ensured that the online survey was easily accessible and user-friendly by providing clear instructions and using an online platform (Google Forms) to collect the data.

### 3.3 Data Collection

The researchers developed a structured questionnaire to collect the data. The questionnaire was designed to capture information on sociodemographic characteristics, reasons for using FDA, and favorite features of FDA services. The questionnaire was distributed to the selected respondents through social media platforms and online groups. The respondents were initially asked if they had experience with food delivery applications, and non-users of FDA were excluded from the study. The respondents voluntarily completed the questionnaire online, and their responses were recorded.

### 3.4 Data Analysis

The data obtained from the online survey were analyzed using SPSS 26.0. Descriptive analysis techniques, such as frequency and mean, were used to examine the characteristics of the sample. To identify any associations between nonnumeric variables, the chi-square test of independence was

applied. The chi-square test evaluates whether there is a statistically significant association between two categorical variables (Turhan, 2020).

#### 4. Results

The behavior or lifestyle of the respondents is analyzed to gain insight as to know the reasons they order online and their favorite features of the online order process.

**Table 1**

*Eating Out and Online Food Ordering Behavior*

| Measure                             | Items                         | Frequency | Percentage |
|-------------------------------------|-------------------------------|-----------|------------|
| Frequency of eating at a restaurant | Less than a few times a month | 13        | 8%         |
|                                     | A few times a month           | 74        | 44%        |
|                                     | A few times a week            | 57        | 34%        |
|                                     | Almost every day              | 24        | 14%        |
| Frequency of Online Food Ordering   | Once a month or less          | 71        | 42%        |
|                                     | Once a week or less           | 50        | 30%        |
|                                     | Once or twice a week          | 33        | 20%        |
|                                     | Three or more times a week    | 14        | 8%         |

Source: Author developed

A cross tabulation study between the frequency of eating out and ordering online shows a relationship between the two (chi-square = 24.901,  $p = 0.003$ ). People who eat out less at restaurants order less online.

**Table 2**

*Reasons for Ordering Food Online*

| Factors                  |                                              | Responses |         | Percent of Cases |
|--------------------------|----------------------------------------------|-----------|---------|------------------|
|                          |                                              | N         | Percent |                  |
| Reasons for Online Order | Dont want to cook                            | 79        | 25.4%   | 47.6%            |
|                          | Limited Dining Time                          | 31        | 10.0%   | 18.7%            |
|                          | Don't want to go outside                     | 147       | 47.3%   | 88.6%            |
|                          | Restaurant that I want to go is too far away | 54        | 17.4%   | 32.5%            |
| Total                    |                                              | 311       | 100.0%  | 187.3%           |

Source: Author developed

The reason why people order food online is an important aspect of studying the consumer behaviour of OFD consumers. One sample chi-square test shows that the categories of reasons why people order food online do not occur with equal probabilities ( $X^2 = 97.064$ ,  $p = 0.000$ ). 147 respondents out of 168, almost 89% of the cases, voted that the unwillingness to go outside is one reason to order food online. Seventy-nine respondents said they order food online when they are not willing to cook food at home, and it is convenient to order online. Fifty-four respondents stated that the restaurant they want to order from is too far away, and it is easy to order online. With such busyness growing around our lifestyle, limited dining time is another reason people order online. In the open-ended part, consumers mentioned their reasons which they did not find in the options. Such reasons include consumers ordering food online at the office when they crave any special food, when they cannot prepare the food they want to have, in Ramadan, a month characterized by fasting by Muslims, and when there are discounts available.

**Table 3***Favourite Features of Online Food Ordering*

| Factors           |                            | Responses |         |                  |
|-------------------|----------------------------|-----------|---------|------------------|
|                   |                            | N         | Percent | Percent of Cases |
| Favorite Features | Convenience                | 114       | 22.8%   | 67.9%            |
|                   | Menu with Pictures         | 83        | 16.6%   | 49.4%            |
|                   | Delivery Tracking Service  | 59        | 11.8%   | 35.1%            |
|                   | Diversity of Food Type     | 86        | 17.2%   | 51.2%            |
|                   | More Number of Restaurants | 83        | 16.6%   | 49.4%            |
|                   | Courteous Delivery Man     | 20        | 4.0%    | 11.9%            |
|                   | Fewer Mishaps              | 27        | 5.4%    | 16.1%            |
|                   | Quick Customer Feedback    | 29        | 5.8%    | 17.3%            |
| Total             |                            | 501       | 100.0%  | 298.2%           |

Source: Author developed

*Convenience* is the basic principle on which this service of the online food industry stands and hence received the highest percentage of responses. In analyzing the favorite features of online food delivery, a few broad factors were broken down into smaller components. Service quality was broken down into Fewer Mishaps, courteous delivery man, and quick customer feedback. The app interface includes a menu with pictures. Flexibility was broken down to more restaurants and a diversity of food types. Service quality dimensions showed less response than the other features.

**Cross Tab Analysis****Table 4***Association between Background Factors and Online Consumer's Behaviour*

| Factors        | Reasons to order online         | Features of online order        |
|----------------|---------------------------------|---------------------------------|
| Age            | $X^2 = 11.889$ $p = 0.156$      | $X^2 = 20.464$ $p = 0.200$      |
| Gender         | $X^2 = 7.830$ $p = 0.098^{**}$  | $X^2 = 30.754$ $p = 0.000^*$    |
| Occupation     | $X^2 = 15.330$ $p = 0.053^{**}$ | $X^2 = 21.860$ $p = 0.148$      |
| Monthly Income | $X^2 = 6.700$ $p = 0.877$       | $X^2 = 33.435$ $p = 0.095^{**}$ |

\* Significant at 5% significance level

\*\* Significant at 10% significance level

Source: Authors Developed

**4.1 Reasons for online order with Gender, Occupation and Income**

In analyzing the association between gender and reasons for ordering food online, a significant association was found between the two variables at a 10% significance level (Chi-square = 7.830,  $p = 0.098$ ). Further analysis between gender and individual reasons shows there is a correlation between gender and the reason to not wanting to cook food (chi-square = 6.423,  $P = 0.011$ , Cramer's  $V = 0.196$ ) (Table 5). Cramer's  $V$  is a measure for the strength of an association between two categorical variables in tables bigger than  $2 \times 2$  tabulation. Cramer's  $V$  varies between 0 and 1 without any negative values. Similar to Pearson's  $r$ , a value close to 0 means no association, and a value bigger than 0.25 is named as a very strong relationship for the Cramer's  $V$  (Akoglu, 2018). Females stated the reason "do not want to cook" more than the males did. The association between occupation and reasons for ordering food online can be considered significant at a 10% significance level, as the  $p$ -value is 0.053 (Table 4). While respondents from all occupations stated the unwillingness to go outside as the reason for ordering food online highly compared to other reasons, students responded less to the reason "Limited dining time" Private service holders responded more to the reason "do not want to cook" than students and respondents from other occupations. Reasons to order online did not show any association with monthly income (Chi-square = 6.700,  $p = 0.877$ ). No correlation was found between age and reasons to order food online (Chi-square = 11.889,  $p = 0.156$ ) (Table 4).

**Table 5***Cross Tabulation between Reasons for Online Food Ordering and Sociodemographic Factors*

| Variables                                        | X <sup>2</sup> | p       | Cramer's V |
|--------------------------------------------------|----------------|---------|------------|
| Age * Don't want to cook                         | 2.577          | 0.276   |            |
| Age * Limited dining time                        | 1.521          | 0.468   |            |
| Age* Don't want to go outside                    | 3.173          | 0.205   |            |
| Age* Restaurant I want to go is far away         | 3.743          | 0.154   |            |
| Gender * Don't want to cook                      | 6.423          | 0.011*  | 0.196      |
| Gender * Limited dining time                     | 0.191          | 0.662   |            |
| Gender* Don't want to go outside                 | 0.35           | 0.554   |            |
| Gender* Restaurant I want to go is far away      | 0.054          | 0.817   |            |
| Occupation * Don't want to cook                  | 4.865          | 0.088** | 0.170      |
| Occupation * Limited dining time                 | 5.079          | 0.079   |            |
| Occupation * Don't want to go outside            | 0.033          | 0.984   |            |
| Occupation * Restaurant I want to go is far away | 5.545          | 0.062   |            |
| Income * Don't want to cook                      | 0.994          | 0.803   |            |
| Income * Limited dining time                     | 1.865          | 0.601   |            |
| Income * Don't want to go outside                | 0.767          | 0.857   |            |
| Income * Restaurant I want to go is far away     | 3.042          | 0.385   |            |

\*Significant at 5% level of significance

\*\*Significant at 10% level of significance

Source: Authors Developed

**4.2 Favourite Features of Online Food Order with Gender, Occupation and Income**

A clear association can be seen in cross-tabulation between gender and favorite features of online food delivery (chi-square = 30.754,  $p = 0.000$ ) (Table 4). The associations between gender and convenience (chi-square = 6.316  $p = 0.012$ , Cramer's  $V = 0.194$ ), between gender and menu with pictures (chi-square = 12.77,  $p = 0.000$ , Cramer's  $V = 0.276$ ), and between gender and fewer mishaps (chi-square = 4.096,  $p = 0.043$ , Cramer's  $V = 0.156$ ) are significant at 5% significant level (Table 6). The association between gender and the feature courteous delivery man is significant at a 10% significance level with a p-value of 0.076 and chi-square value = 3.139. Males tend to enjoy convenience features more than females, and females prefer to enjoy the feature "Menu with pictures" more than males. Favorite features do not show any correlation with the occupation. However, the feature diversity of food type is associated with occupation (chi-square = 6.257,  $p = 0.044$ , Cramer's  $V = 0.193$ ). Monthly income correlates with convenience, with people with income above 1.5 lac responding to convenience as their favorite feature. Age does not show any association with the favorite features of online food orders.

**Table 6***Cross Tabulation between Favourite Features and Sociodemographic Factors*

| Variables                         | X <sup>2</sup> | p       | Cramer's V |
|-----------------------------------|----------------|---------|------------|
| Age * Convenience                 | 6.466          | 0.039*  | 0.196      |
| Age * Menu with Pictures          | 2.6            | 0.273   |            |
| Age* Delivery tracking service    | 0.654          | 0.721   |            |
| Age* Diversity of food type       | 4.645          | 0.098** | 0.166      |
| Age* More number of restaurants   | 1.149          | 0.563   |            |
| Age * Courteous Delivery Man      | 1.418          | 0.492   |            |
| Age* Fewer Mishaps                | 3.37           | 0.185   |            |
| Age* Quick Customer support       | 0.163          | 0.922   |            |
| Gender * Convenience              | 6.316          | 0.012*  | 0.194      |
| Gender * Menu with Pictures       | 12.77          | 0.000*  | 0.276      |
| Gender* Delivery tracking service | 1.255          | 0.263   |            |

|                                         |        |         |       |
|-----------------------------------------|--------|---------|-------|
| Gender* Diversity of food type          | 1.702  | 0.192   |       |
| Gender* More number of restaurants      | 0.017  | 0.896   |       |
| Gender* Courteous Delivery Man          | 3.139  | 0.076** | 0.137 |
| Gender* Fewer Mishaps                   | 4.096  | 0.043*  | 0.156 |
| Gender* Quick Customer support          | 1.459  | 0.227   |       |
| Occupation * Convenience                | 8.947  | 0.011*  | 0.231 |
| Occupation * Menu with Pictures         | 0.913  | 0.633   |       |
| Occupation * Delivery tracking service  | 1.036  | 0.596   |       |
| Occupation * Diversity of food type     | 6.257  | 0.044*  | 0.193 |
| Occupation * More number of restaurants | 1.148  | 0.563   |       |
| Occupation * Courteous Delivery Man     | 1.404  | 0.496   |       |
| Occupation * Fewer Mishaps              | 1.252  | 0.535   |       |
| Occupation * Quick Customer support     | 0.903  | 0.637   |       |
| Income * Convenience                    | 12.772 | 0.005*  | 0.276 |
| Income * Menu with Pictures             | 4.746  | 0.191   |       |
| Income * Delivery tracking service      | 2.715  | 0.438   |       |
| Income * Diversity of food type         | 5.195  | 0.158   |       |
| Income * More number of restaurants     | 0.638  | 0.888   |       |
| Income * Courteous Delivery Man         | 4.458  | 0.216   |       |
| Income * Fewer Mishaps                  | 2.235  | 0.525   |       |
| Income * Quick Customer support         | 0.694  | 0.875   |       |

\*Significant at 5% level of significance

\*\*Significant at 10% level of significance

Source: Authors Developed

## 5. Discussion

Table 7 shows a summary of the results of the hypotheses testing. Out of 8 hypotheses developed in the study, one hypothesis, H4, was supported at a 5% significance level, and three hypotheses, hypotheses H3, H5, and H8, at a 10% significance level. Gender is strongly associated with reasons to order online and favorite feature of the FDA. Occupation was found to have a significant association with reasons to order. Income has an association with the favorite features of the FDA.

**Table 7**

### Summary of Results

| Hypotheses                                                               | Result       |
|--------------------------------------------------------------------------|--------------|
| H1 Age has a significant association with reasons to order online        | Rejected     |
| H2 Age has a significant association with favorite features of FDA       | Rejected     |
| H3 Gender has a significant association with reasons to order online     | Supported**  |
| H4 Gender has a significant association with favorite feature of FDA     | Supported *  |
| H5 Occupation has a significant association with reasons to order online | Supported**  |
| H6 Occupation has a significant association with favorite feature of FDA | Rejected     |
| H7 Income has a significant association with reasons to order online     | Rejected     |
| H8 Income has a significant association with favorite feature of FDA     | Supported ** |

\*Supported at 5% level of significance

\*\*supported at 10% level of significance

Source: Authors Developed

Despite the growth of demand for online food delivery services all around the globe, the impact of consumer demographics on consumer behavior toward OFD services has yet to be addressed. This study represents one of the first to scrutinize consumer behavior regarding the reasons for online food ordering and favorite features of OFD services. Results show an association between eating out and ordering food online (Table 2). Hypotheses H1 and H2 were rejected, showing that reasons to order food online and the FDA's favorite features have no significant association with age. These findings are different from Joines et al. (2003), Haque et al. (2007), and Sulaiman et al. (2008), who found differences in purchase behavior among old and young consumers.

The relationships between gender and occupation with reasons to order online, hypotheses H3 and H5, were statistically significant at the 10% significance level. The finding is consistent with that of Alshurideh et al. (2021), Merhi et al. (2021), Wong et al. (2019), Haque et al. (2007), and Gupta et al. (1995). The response to the reason "unwillingness" to cook food was higher for females than males and private service holders compared to students and other professionals. In a culture where females are the primary meal makers and mainly responsible for preparing food, it is not surprising to find them ordering food online when they do not feel like cooking. Private service holders also do not feel like cooking after a day at work and coming home fighting the thick traffic. Students responded less to the reason for less dining time as they are not crunched for preparing their meals. Income was found not to have any significant association with reasons for online orders (H7).

The features of convenience and menu with pictures were found to have a significant association with gender (H4). Males tend to enjoy the convenience of online ordering more than females, and females enjoy the feature "menu with pictures" more than males. Females responded more to the feature with fewer mishaps than males did. Females tend to perceive product risk more than males (Mitchell & Walsh, 2004). These findings are supported by previous studies on the influence of gender on online shopping attitudes, where men were found to be more online shoppers than females (Mitchell & Walsh, 2004; Hashim et al., 2009). Male online shoppers are convenience-oriented, while female shoppers are recreational shoppers (Gupta et al., 1995; Haque et al., 2007). Income also had a significant association with the convenience feature as private service holders and consumers with monthly family income over BDT 1.5 lac enjoy the convenience feature more than other consumers with other occupations and income groups. Previous studies have shown that high-income consumers are more conscious about the value of time and believe that online shopping saves time (Ratchford et al., 2003). However, occupation was not found to have any significant association with favorite features (H6); private service holders enjoyed convenience as their favorite feature of the FDA. Private service holders also enjoy the food delivery companies' diversity more than the students and other occupation groups (Table 6).

## 6. Social, Economic and Managerial Implications

In countries like Bangladesh, where people have to spend 2-3 hours, on average, on the road to travel from work to home, ordering food with a tap on the mobile phone and getting it delivered at home is a blessing. Students staying away from family can now spend more time studying because of the opportunity FDA presents. Online food and grocery ordering have allowed people to live life more independently. Older people now lead a more independent life as they do not need to rely on others for everyday necessities (Henke, 1999). Working couples can now better manage their household with FDA by ordering food online when time-pressed. People can now arrange instant social gatherings and get-togethers without worrying about the hassle of cooking food. Friends and family can afford to spend more time together without having to worry about preparing meals. Thus, FDA has impacted people of all ages, gender, income, and occupation.

The concept of a marketplace has changed to digitalization due to COVID-19. Restaurants are now reducing operational costs and enhancing efficiency by decreasing the number of branches and shifting to cloud kitchens. Restaurants are using FDA as a tool for business competitiveness and increased market share (Yeo et al., 2017). The sustainability of the FDA is primarily dependent on serving the needs and expectations of its existing consumers to battle out the increasing competition among the FDA service providers (Ray et al., 2019). This study on the impact of sociodemographic factors on consumer behavior will enable businesses to better segment the market, understand and address needs, reduce unnecessary costs, increase efficiency, and generate higher profits. The survival of such an industry is crucial because of its employment generation in a short and crucial time. The online food industry has opened up new avenues of livelihood for many people. Many entrepreneurs and home cooks have now signed up with FDA to find customers for their home cook foods. A lot of at-home men and women are using FDAs to generate extra income for the family. This study will help aspiring entrepreneurs better understand their customer needs and add more excellent value to flourish

their business. According to Kotler and Keller (2012), it is crucial to understand consumer life to ensure the right goods and services are being marketed in the most productive way possible. Therefore, it is vital to explore the behavior of consumers under COVID-19 to target them and customize product offerings appropriately.

The study analyses the customer behavior in terms of the reasons for online food ordering and the circumstances of online food ordering, and the consumers' favorite features of the FDA. The study will thus help academicians, marketers, and FDA service providers to identify consumers' needs, segment the market better, and develop more significant value, which helps retain customers and ensure financial profitability. Understanding the impact of sociodemographic factors on purchase intention will help marketers develop and design efficient marketing strategies. The empirical study will also contribute to the knowledge of consumer behavior and online food delivery industry.

## 7. Conclusion

The impact of COVID-19 on e-commerce has been primarily negative, but overall, e-commerce has grown. Research suggests that the usage of online retail applications and mobile e-commerce apps has experienced significant growth in terms of new users (Hasanat et al., 2020). The increased activity of buying things over the Internet has created a demand for online deliveries, and contactless delivery has become the new norm (Niazi, 2020). With rapid economic growth, digitalization, and the busy lifestyle of the people, this industry has already shown significant growth. The study attempted to identify the impact of sociodemographic factors on the behavior of the consumers of FDA services. Results suggest that age has no significant association with reasons for online food ordering or favorite features of the FDA. The study confirms that men and women differ in their favorite features of the FDA. Men prefer convenience, while females prefer menus with pictures and fewer mishaps as their favorite features. FDA service providers can highlight different features of their application to different genders for better success. The reasons are influenced by occupation. The needs are different for different occupations. Marketers can do need-based and situational segmentation to offer superior value to customers. Income was found to have a significant relationship with the favorite features of the FDA. High-income earners prefer convenience; thus, marketers can offer maximum convenience by charging higher prices. The study's findings will significantly help the marketers and FDA service providers understand consumer behavior, segment the market, and develop appropriate marketing strategies. FDA service providers can design their offerings by knowing consumer preferences to provide the right features. Online food delivery service providers will attract new prospective consumers if their needs are properly understood.

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