

# **Clicks over Kitchens: Unveiling the Factors Shaping Young Adults' Reliance on Food Delivery Apps**

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## **ABSTRACT**

Young adults love food delivery apps, and they frequently utilize them to buy calorie-dense foods. There isn't much data on young adults' use of food delivery apps (FDAs). This article set out to characterize the use of FDAs by young adults and investigate the factors that are associated with such usage. The data originate from a group of young adults in Delhi NCR, aged 18 to 25 (n = 1,576). The relationship between the use of FDAs and factors such as age, gender, Marital status, SES, living situation, financial responsibility, and full-time student status was investigated using poisson regression. Using food delivery apps more frequently was substantially correlated with greater reported subjective social status, food insecurity, financial responsibility, and being a full-time student. A lower frequency of use of food delivery apps was linked to cohabitation. This study offers a preliminary grasp of the traits of young individuals who utilize food delivery services. Further investigation is necessary to fully understand the kinds of food ordered through food delivery apps, as these new technologies have the potential to improve access to both bad and nutritious food options.

**Keywords :** Young adults, DINKs, Food delivery apps, DIWKs, Food insufficiency

## **INTRODUCTION**

The \$43.78 billion collective worth of online food ordering services like Zomato, Swiggy, etc underscore the noteworthy effects of these platforms on the food industry in India (Statista, 2024). As they continue to gain traction, they have transformed the way people access and consume food. These apps not only provide convenience and accessibility but also offer a wide range of culinary options, catering to diverse preferences and tastes. With the growing reliance on digital platforms for food consumption, it's crucial to understand the implications of this shift in consumer behaviour on public health and dietary choices (Molenaar *et al.*, 2021). According to available data, the effectiveness of advertising aimed at young adults is evident, with individuals aged 18 to 25 exhibiting the highest frequency of FDA usage within the past 3 months compared to other

age demographics, says Zion and Hollman (2019). Previous research has referred to FDAs as "junk food on demand" since they provide fast food and restaurant meals at a more convenient time (Partridge *et al.*, 2020). There is typically a difference in nutritional density between homemade meals and those prepared in restaurants, with the former having higher levels of calories from saturated fat and sodium, observes Kant and Graubard (2018). Frequent eating these items high in calories may heighten the likelihood of weight gain and obesity (McCrory *et al.*, 2019). Hence, it's crucial to grasp the potential impact of the growing food delivery market on the risk of obesity among young adults. Until now, the majority of research on food delivery apps has primarily concentrated on adults, with limited emphasis placed on young adults, despite their status as one of the most frequent users. For instance, it is established that young adults utilize food delivery apps with greater

frequency compared to older adults (Zion and Hollman, 2019). Nevertheless, there is a gap in our understanding regarding whether the usage of food delivery apps differs within the age range of 18–25 years, which is recognized as the period of emerging adulthood. Considering that these years encompass various life stages such as transitioning to college, entering the workforce, forming romantic partnerships or marriages, and potentially becoming parents, it's plausible that the use of FDAs may be different across this developmental period.

Young adulthood is a one in a kind phase of life where individuals experience important transitions and developments in various aspects of their lives, including financial responsibility. During this stage, some young adults may still rely on their parents or caregivers for financial support and may not be financially responsible for their own purchases or bills. This dependency on others for financial support may influence the use of FDAs, as young adults may be less likely to have the means to pay for these services themselves. In such cases, they might turn to alternative options like cooking at home to manage expenses effectively (Fan *et al.*, 2022). The divergence in financial responsibility likely influences the usage of food delivery apps, given the additional costs associated with when placing an order via these sites, there are delivery fees and per-item costs compared to purchasing food in-store. Considering that young adults often face numerous financial obligations, the utilization of delivery apps may be perceived as either a time-saving and full of convenience option or as excessively costly, given their balancing act with finances (Pelletier *et al.*, 2012). Since different people have different eating habits depending on where they reside, living conditions, whether single, with family, or with a roommate, are also likely to have an impact on how often people use food delivery apps (Knol, 2019).

### **Theoretical Background:**

Online food ordering apps have become increasingly popular among young adults due to several factors. Firstly, the convenience offered by these apps is a major draw for young adults. They can easily browse through a wide variety of restaurants and menus, place their orders with just a few taps on their smartphones, and have their food delivered right to their doorstep. Secondly, online food ordering apps provide young adults with a variety of options. They can pick from a multitude of cuisines and restaurants, giving them the freedom to explore different

tastes and try new experiences. Additionally, online food ordering apps also cater to the needs of young adults with busy schedules. These platforms offer features like pre-scheduling orders or quick re-ordering functions that fit seamlessly into hectic lifestyles while still allowing flexibility in meal choices throughout the day. Online food ordering meets the needs of busy individuals with a hectic and bustling lifestyle by placing their order online through their smartphones, tablets or laptops and receive delivery within a few minutes to their doorsteps. There are some experiences that come with being an emerging adult that could affect how meal delivery applications are used. For instance, while some young adults are deemed fiscally prudent and cover their own expenses or purchases, many others are deemed non-financially responsible because they depend on their parents, guardians, or another source of income in addition to their own (Fan *et al.*, 2022). The conflicting principles of financial responsibility may influence the utilization of food delivery applications, considering the additional costs associated with delivery and item prices when placing an order via these apps as opposed to buying food in-store. Additionally, studies reveal that due to their restricted income and expensive housing or tuition, young adults in the US are more likely than older age groups to experience food insecurity (Raskind *et al.*, 2019). Xiao (2014) states that considering that emerging adults frequently balance a number of financial responsibilities, using delivery apps may be viewed as too expensive or time-saving. The use of food delivery apps is also likely to be influenced by one's living situation (*i.e.*, living alone, with family, or with a roommate), since different people have different eating habits when they live alone or with others (Knol *et al.*, 2019).

The usage of FDAs might also differ depending on demographic characteristics including sex, gender, marital status, household size, and socioeconomic status (SES). According to Naska *et al.* (2015), young adults who are male eat more out of the house than those who are female. If they choose to cook less at home than females, this could lead to a higher possibility that they will utilize online FDAs. However, other research indicates that the rates of fast-food intake by men and women are comparable, CDC, 2021. Only 25.3% of adults in the third-highest income range (\$150–175k) reported using FDAs in the past 90 days, according to recent consumer statistics on these services says Zion and Hollman (2019). In contrast, 51.6% of adults in the bottom income category (\$0–9k)

reported using these services. According to Keeble *et al.*, 2021, the poorest communities had the highest rates of use for online meal services and food delivery apps. Grocery stores offer a variety of healthy and bad food alternatives, and online food delivery apps offer a quick and convenient way to get food. Therefore, access to healthier meals may be made possible for residents of food deserts by FDAs. Therefore, the first step in assessing the influence of FDAs on food availability is to ascertain whether the frequency of use varies by these sociodemographic factors.

In a nutshell there is little research on the use of meal delivery apps. Furthermore, despite evidence showing that young adults are the primary consumers of meal delivery applications, very little study and little work have been done on this demographic. Thus, this study aims to: (1) characterize the use of food delivery apps by young adults; and (2) investigate the relationship between the use of food delivery apps and variables such as age, gender, marital status (Unmarried/DINKs {Double Income No Kids}/DIWKs {Double Income with Kids}), perceived SES, food insufficiency, living situation, financial responsibility, and full-time student status.

## METHODOLOGY

### Study Design:

The information was gathered online by circulating a questionnaire from the month of January–March. We used the Qualtrics survey panel to find young adults between the ages of 18 and 25. 1,630 young adults in all responded to the survey. For the current study, data on items included in the analysis were available for 1,576 participants, or 96.7% of the total sample.

### Measures:

#### *Food Delivery Apps use:*

The question, “In the last month, how many times per week on average did you use a FDA (e.g., Zomato, Swiggy, Dunzo etc.) for restaurant/prepared food delivery?” was used to gauge how frequently participants used food delivery apps. A scale of 0 to 6 was used for the response options, with 0 representing “nil,” 5 representing “multiple times a day,” and 6 representing “delivery apps are not existing in my area.” A scale consisting of 0 times/week, 1.5 times/week, 3.5 times/week, 5.5 times/week, 7 (every day for the previous week), and 8 (many times/day) was used to recode the data.

#### *Sociodemographic factors:*

The questionnaire asked questions about the age, gender, marital status, and socioeconomic status of the young adults who answered. One item was used to measure age; it questioned, “How old are you?” on a continuous scale from 18 to 25 years old. The codes for gender were male (0) and female (1). Marital status was coded as unmarried (0), DINKs (1), DIWKs (2), and other (3). One item, “What is your current employment/student status?” was used to gauge full-time status as a student. The codes assigned to the responses were (1) full-time student and (0) other. The MacArthur Scale of Subjective Social Status (SSS) (Adult Version), a valid instrument for measuring SSS, questioned, “Where would you place yourself on this ladder? “, which helped researchers gauge perceived SES. Kindly indicate on the rung where you believe you are in relation to other individuals in your network right now by placing a large “X” there (Adler *et al.*, 2000). Numbering each step on the ladder from 1 (bottom), which was the lowest relative to the others, to 10 (top), which was the highest relative to the others.

#### *Financial Responsibility:*

One item, “Are you yourself responsible for your credit card bill?” was used to gauge financial responsibility. and received a Yes (1) or No (0) code.

#### *Food Insufficiency*

Two items were used to gauge the participants' level of food insufficiency: (1) “I worried that my food would finish before I got money to buy more” and (2) “It just didn't last the whole year and I didn't have money to get more.” Participants were asked to rate their agreement with the claims on a scale of 1 to 4 ((1) very true, (2) sometimes true, (3) never true, or (4) don't know) based on these questions. If a participant answered either item (food insecure (1) or not food insecure (0)) frequently or occasionally, they were deemed to be food insecure.

#### *Living Situation:*

“What is your current living situation?” was posed to the participants. The choices for responses were “living independently alone, living with one or more roommates, living with parents/caregivers. Data were categorized as follows for the analysis: (1) living with someone, and (0) living alone.

### Analyses:

Google form was used to collect the data, and Stata Version 19 was used for data analysis. We computed descriptive statistics. The relationship between the use of FDAs and factors such age, gender, marital status, perceived SSS, housing arrangement, food insufficiency, financial responsibility, and full-time student status was investigated using poisson regression.

## RESULTS AND DISCUSSION

The Tables below display descriptive statistics for every variable. Young adults utilized FDAs about 1.8 times a week in the previous month. The age distribution was 21.8 years (Table 1). About 51.8% of the individuals in the sample were female (Table 2). with 39.3% being single, 29.6% being DINKs, 24.4% being DIWKs, and 6.8% having another status.

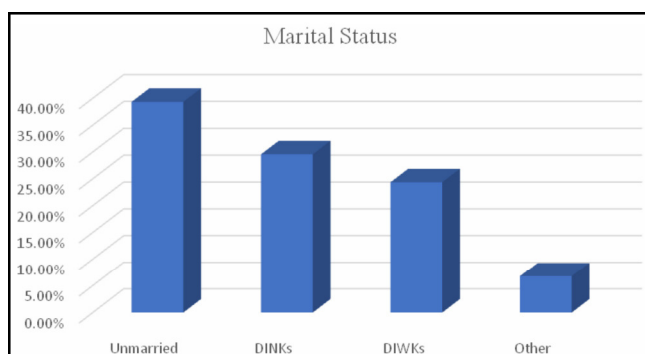
**Table 1: FDA usage frequency of the participants**

Factor	Frequency
Weekly Food delivery app use, mean (SD)	1.8 (1.46)
Age, mean (SD)	21.75 (2.22)

**Table 2: FDA Usage According to Gender of the participants**

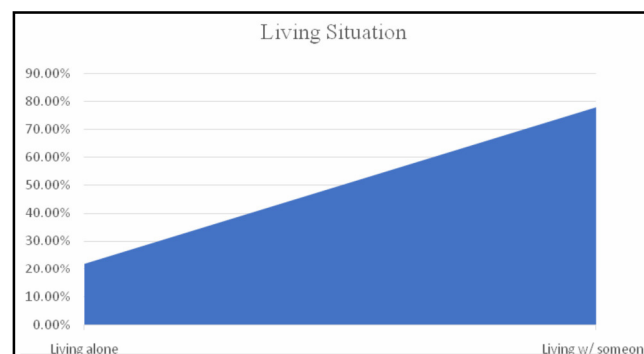
Gender	Freq. %
Male	48.22%
Female	51.78%

Fig. 1 explores how marital status influences food delivery app usage. Among the 1576 participants, the breakdown is as follows: 39.3% single, 29.6% DINKs (Dual Income, No Kids), 24.4% DIWKs (Dual Income, With Kids), and 6.8% with other marital statuses – all utilize food delivery apps (FDAs).

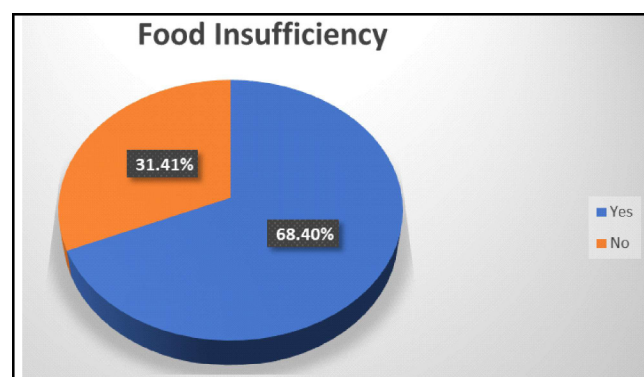


**Fig. 1 : FDA Usage according to Marital Status of the participants**

On a scale of 1 to 10, the average felt SSS (Social Subjective Status) was 5.9 on the ladder. The majority of participants were full-time students (71.6%), lived with someone (78.1%), experienced food insufficiency (68.4%), and were financially accountable for their credit card bills (63.1%). This has been shown in the Fig. 2 and 3, respectively.



**Fig. 2 : FDA usage according to the living situation of the participants**



**Fig. 3 : FDA usage due to food insufficiency**

There was no correlation between the frequency of usage of food delivery apps and marital status or sex (refer to Table 2). When compared to those who were single, those who identified as DINKs and DIWKs used food delivery apps more frequently. Using meal delivery apps more frequently was substantially correlated with being older, having a higher perceived SSS, food insufficient, living with someone else, being financially responsible, and being a full-time student.

### Discussion:

Apps for food delivery have become more popular in recent years, states (Duthie *et al.*, 2023). Apps for

**Table 2 : Poisson regression models predicting times per week use of food delivery apps among young adults (N = 1,576)**

	Coefficient ( $\beta$ )	St. Error	<i>p</i>
Age	0.02	0.01	<0.05
Female Gender (vs. male)	-0.04	0.04	>0.05
<b>Marital Status (vs. Unmarried)</b>			
DINKs	0.21	0.05	<0.001
DIWKs	0.35	0.05	<0.001
Other	0.12	0.08	>0.05
Perceived SSS	0.08	0.01	<0.001
Food insufficiency	0.32	0.04	<0.001
Living situation (Living w/someone)	-0.09	0.04	<0.05
Financial responsibility	0.21	0.04	<0.001
Full-time college student	0.11	0.04	<0.01

food delivery were utilized about twice a week by the young adults in our sample. The usage of FDAs was linked to a number of sociodemographic characteristics, such as being an older young adult, living alone, having a higher perceived SSS, feeling food insufficiency, DINKs and DIWKs, and being financially responsible. When all other criteria were taken into account, there were no variations in the use of FDAs by gender. These results imply that young individuals who use FDAs more frequently than once a week have different usage patterns, which may lead to an increase in the frequency of eating out.

Compared to their single peers, young adults who identify as DINKs or DIWKs used FDAs more frequently. This discovery could improve our knowledge of the sociodemographic variations in consumption. We discovered that young persons with higher perceived SSS use FDAs more frequently, despite prior consumer data suggesting that those with the lowest and highest SES used FDAs the most. These results may suggest that either young person use FDAs differently than older adults, or that variations in use may be noticed depending on how SES is evaluated, since previous research have included older participants and measured SES using income. Additionally, as FDAs are typically more expensive than eating out, young persons with lower perceived SSS may not be able to afford to order from them. Research is required to examine how different socioeconomic statuses may have varied relationships between the use of FDAs, their motivations, and the kinds of purchases they make.

One important finding was the higher frequency of FDA usage in the previous month among young adults who reported experiencing food insufficiency in the previous year. According to Hagedorn *et al.*, 2018, young

adults who struggle with food insufficiency could find that using FDAs is an easy way to get a wider selection of food options or a less stressful shopping experience. In addition, ordering food using apps might be a convenient way to make up for running out of food at home. The proportion of young adults in our sample who said they had experienced food insecurity was significantly higher than in earlier research. More research is necessary to fully understand the use of FDAs among individuals experiencing food insufficiency, as they have the potential to expand food access for those who are food insecure.

The correlation between being a full-time student and using meal delivery apps more frequently is instructive since it might point to problems with food availability on college campuses. For instance, many college students see their campuses as food deserts due to the apparent lack of affordable or healthful lunch options. According to Dhillon *et al.* (2019) Students may therefore use FDAs more frequently to receive their meals and obtain healthier food options on campuses that are seen to be food deserts, with fast food businesses serving as the only perceived source of reasonably priced food.

Living status is another factor that may be related to aging or growing financial independence; using FDAs was found to be higher when one was living alone. Self-perceived cooking skills are low in many young adults living alone, which lowers their drive to prepare meals for themselves says, Andrade (2020). Young adults who live alone may find FDAs to be an especially enticing and practical substitute for cooking at home. On the other hand, young adults who live in shared housing might have a roommate, parent, or caregiver who prepares meals for them or helps them, which could account for their reduced usage of FDAs.

Although this study is among the first to look at young individuals' use of FDAs, it has certain limitations. First off, we are unable to ascertain if the parameters looked at predicted the usage of FDAs because our survey was cross-sectional. Therefore, in order to gain a deeper understanding of the temporal nature of these connections, further longitudinal studies are required. It is necessary to conduct further research on the usage of FDAs throughout time. Notwithstanding these drawbacks, our research still offers insightful information about how young folks utilize meal delivery services. Further investigation into the use of FDAs over time is necessary. Despite these limitations, our study provides valuable insights into the ways in which young people use food delivery services.

This study has a number of research-related ramifications. First off, although looking at how sociodemographic and social characteristics affected the use of FDAs, this study does not explain why people buy food or why they make certain purchases. Therefore, studying decision-making and the motivations behind purchasing may be beneficial for future research. Furthermore, a deeper comprehension of the nutritional value of food ordered through food delivery apps would be helpful in determining whether or not these applications are making it easier to acquire healthy foods or making unhealthy foods more accessible. Furthermore, even if it is known that some people can obtain healthy food through meal delivery apps, there might be differences in this food access due to comparable circumstances. Lastly, research in the future should look at how using FDAs could replace eating out or cooking at home. It's possible that eating meals from FDAs may take the place of going out to eat or that home-cooked dinners will be replaced by meals from FDAs. Regarding their respective effects on general health, these two differ in ways that are significant.

Young adults now have a new way to obtain meals thanks to FDAs, which raises concerns about potential easy access to harmful foods. FDAs have the potential to offer unhealthy food selections that are easily accessible and immediately available to users' doorsteps, raising worries about obesity and other chronic diseases like diabetes. Conversely, communities residing in food swamps or deserts may now have access to healthier food options thanks to FDAs, which could have a positive effect on health. Gaining a deeper comprehension of the usage of food delivery apps is the first step towards

comprehending this new technology and its potential effects on public health.

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