# Exploring M-Commerce in Odisha: A Multigenerational Analysis of Acceptance

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#### Abstract

Exploring M-Commerce in Odisha: A Multigenerational Analysis of Acceptance conducts an in-depth examination of mobile commerce (M-Commerce) adoption in the culturally diverse state of Odisha, India. This research paper delves into the multifaceted landscape of M-Commerce adoption, with a specific focus on understanding how various demographic factors shape individuals' perceptions and preferences. Through a comprehensive investigation, the study aims to uncover gender-based differences, age-related variances, educational qualification-related disparities, occupational-based variations, income-related differences, and regional disparities in factors influencing M-Commerce. The hypotheses put forth explore the absence of significant differences in mean ranks among different demographic categories, providing a rigorous examination of the nuanced dynamics that influence the acceptance and utilization of M-Commerce services. This research contributes valuable insights to both academia and industry, paving the way for targeted strategies to enhance M-Commerce adoption across diverse demographic groups. The practical implications of this research extend to businesses, policymakers, and technology developers operating in the Odisha region. Understanding the multigenerational dynamics of M-Commerce acceptance is imperative for tailoring strategies that resonate with the diverse consumer base in Odisha.

**Keywords:** M-Commerce adoption, Demographic factors. Regional disparities, Technology Adoption and Generation X & Z.

#### 1. Introduction

In the rapidly evolving landscape of technology and commerce, the adoption of mobile commerce (M-Commerce) has become a pivotal indicator of digital transformation. This study, Exploring M-Commerce in Odisha: A Multigenerational Analysis of Acceptance seeks to unravel the intricate dynamics that underlie the acceptance of M-Commerce services in the culturally diverse state of Odisha, India. As technology becomes increasingly integral to daily life, understanding the nuanced preferences and challenges faced by different demographic groups becomes imperative for businesses, policymakers, and technology developers. The focus on multigenerational analysis acknowledges the diverse perspectives of Baby Boomers, Generation X, Millennials, and Generation Z, recognizing that each generation brings unique experiences and expectations to the digital realm. Odisha, with its rich cultural tapestry and demographic diversity, serves as a compelling setting for this exploration. The study aims to not only quantify the acceptance patterns across generations but also delve into the qualitative aspects, uncovering the reasons behind varying levels of adoption. By examining factors such as gender, age, education, occupation, income, and region, this research aspires to provide a holistic understanding of the factors influencing M-Commerce acceptance. The outcomes of this study carry significant implications for businesses aiming to tailor their services to the diverse population of Odisha, as well as for policymakers seeking to bridge the digital divide and enhance the inclusivity of digital services.

As we embark on this exploration, the study's insights are anticipated to contribute not only to the academic understanding of technology adoption but also to the practical strategies and interventions that can foster a more inclusive and accessible digital ecosystem in Odisha. In the pages that follow, we delve into the multigenerational nuances of M-Commerce acceptance, aiming to decipher the complex interplay of factors that shape the digital landscape in this vibrant and diverse region.

#### 2. Literature Review

Over the past two decades, the global landscape of commerce has witnessed a profound shift with the widespread adoption of mobile commerce (M-Commerce). In the Indian context, studies exploring M-Commerce acceptance have gained prominence, reflecting the nation's rapid digitization. This

literature review spans from 2000 to 2023 and examines the evolution of M-Commerce research with a particular focus on multigenerational dynamics in Odisha.

In the early 2000s, foundational research on M-Commerce emerged, with a primary emphasis on technology adoption and user behaviours. Notable studies, including Davis's seminal work on the Technology Acceptance Model (TAM), played a pivotal role in establishing the framework for comprehending user perceptions in the context of mobile commerce (Davis, 1989). TAM, which delineates factors influencing users' acceptance of technology, significantly contributed to the foundational understanding of M-Commerce adoption during this period. Nevertheless, it is noteworthy that these early studies often failed to delve into the nuanced influences of demographic variations on M-Commerce adoption (Venkatesh et al., 2003).

During the transition period from 2010 to 2015, with the ubiquity of smartphones, there was a discernible shift in focus towards investigating M-Commerce adoption in specific geographical regions. Notable studies, such as Venkatesh et al.'s work on the Unified Theory of Acceptance and Use of Technology (UTAUT), made strides in incorporating demographic variables into the analysis of technology adoption (Venkatesh et al., 2003). However, it is important to note that these studies lacked the specificity required for regional contexts, such as the unique socio-cultural landscape of Odisha.

The period from 2015 to 2020 witnessed a significant turning point, marked by a growing recognition of generational disparities in the realm of technology adoption. Research by Rogers underscored the critical importance of comprehending the diffusion of innovations within diverse age groups (Rogers, 2003). Despite this broader acknowledgment, studies specifically focusing on M-Commerce adoption in Odisha were notably scarce during this period.

In the contemporary period spanning from 2020 to 2023, recent literature accentuates the essential need to customize M-Commerce strategies to suit diverse demographic groups. Studies conducted by Liébana-Cabanillas et al. and Li et al. shed light on the influential role of age, education, and income in shaping M-Commerce adoption patterns (Liébana-Cabanillas et al., 2014; Li et al., 2018). However, it is crucial to note that research specifically focused on Odisha and its multigenerational population is conspicuously limited, indicating a research gap in understanding the unique dynamics of M-Commerce adoption within this regional context.

While the global literature on M-Commerce acceptance has evolved significantly, there exists a research gap regarding the multigenerational dynamics in Odisha. This study seeks to address this gap by providing a detailed analysis of M-Commerce acceptance across generations in the unique socio-cultural landscape of Odisha.

## 3. Objectives

- 1. To Determine Gender-Based Differences in Factors Affecting M-Commerce.
- 2. To Examine Age-Related Variances in Factors Affecting M-Commerce.
- 3. To Assess Educational Qualification-Related Disparities in Factors Affecting M-Commerce.
- 4. To Investigate Occupational-Based Variations in Factors Affecting M-Commerce.
- 5. To Examine Income-Related Differences in Factors Affecting M-Commerce.
- 6. To Explore Regional Disparities in Factors Affecting M-Commerce.

#### 4. Hypothesis

- 1. H<sub>10</sub>: There is no significant difference in mean rank of factor affecting MCommerce between male and female.
- 2. H<sub>20</sub>: There is no significant difference in mean rank of factor affecting MCommerce among age categories.
- 3. H<sub>30</sub>: There are no significant differences in mean rank of factor affecting MCommerce among education qualification categories.
- 4. H<sub>40</sub>: There is no significant difference in mean rank of factor affecting M Commerce among occupation categories.

- 5. H<sub>50</sub>: There is no significant difference in mean rank of factor affecting MCommerce among income categories.
- 6. H<sub>60</sub>: There is no significant difference in mean rank of factor affecting MCommerce among region categories.

## 5. Research Design

The research methodology for this study employs a cross-sectional approach, combining quantitative surveys and qualitative interviews to comprehensively investigate the dynamics of M-Commerce adoption across diverse demographic groups. A structured survey questionnaire gathers quantitative data on demographic variables and M-Commerce adoption factors, using stratified random sampling to ensure representative insights. The data for the study was gathered from 577 respondents from different districts around the state of Odisha, which are essentially divided into major regions like South, Middle, North, and West Odisha. Since the respondents' data had to be gathered from September 2020 to September 2022, it took almost a full year.

## 6. Data Analysis

### 6.1. Mann-Whitney U Test for Gender and Factor Extracted

**Objective 1:** To Determine Gender-Based Differences in Factors Affecting M-Commerce. **Hypothesis H**<sub>10</sub>: There is no significant difference in mean rank of factor affecting MCommerce between male and female.

|                    | Gender | N   | MeanRank | Sum of Ranks | Probability |
|--------------------|--------|-----|----------|--------------|-------------|
| A D footon coore 1 | Mala   | 202 | 070 54   | 106670.00    | 0.024       |
| A-R factor score f | Male   | 202 | 278.34   | 1000/9.00    | 0.034       |
| for analysis 1     | Female | 194 | 309.66   | 60074.00     |             |
|                    | Total  | 577 |          |              |             |
| A-R factor score 2 | Male   | 383 | 281.53   | 107827.00    | 0.131       |
| for analysis 1     | Female | 194 | 303.74   | 58926.00     |             |
|                    | Total  | 577 |          |              |             |
| A-R factor score 3 | Male   | 383 | 293.67   | 112475.00    | 0.345       |
| for analysis 1     | Female | 194 | 279.78   | 54278.00     |             |
|                    | Total  | 577 |          |              |             |
| A-R factor score 4 | Male   | 383 | 293.91   | 112569.00    | 0.320       |
| for analysis 1     | Female | 194 | 279.30   | 54184.00     |             |
|                    | Total  | 577 |          |              |             |
| A-R factor score 5 | Male   | 383 | 294.03   | 112615.00    | 0.308       |
| for analysis 1     | Female | 194 | 279.06   | 54138.00     |             |
|                    | Total  | 577 |          |              |             |

Table1: Result of Mann Whitney Test for Gender and Factor Extracted

In the Table 1 it shows that the Mann Whitney U test summary for gender being a two independent variable as male and female and factor score as dependent (Ratio Scale) variable. The table clearly indicates that in all the cases expect factor 1, researcher failed to reject the null hypothesis, as the probability value comes out to be greater than 0.05. In other words, researchers can conclude that there is no significant difference between factors affecting M Commerce and gender considered under study. Factor 1 which is ease of use has probability value less than 0.05 so it indicates to reject the null and interpret that there is some significant difference in mean rank between male and female. However, researcher can interpret that female respondents are feeling more ease of use with M Commerce as the mean rank is found to be high compared to male.

## 6.2. Kruskal Wallis Test for Age and Factor Extracted

**Objective 2:** To Examine Age-Related Variances in Factors Affecting M-Commerce.

Hypothesis H<sub>20</sub>: There is no significant difference in mean rank of factor affecting MCommerce among age categories.

|                                  | Age   | Ν   | Mean Rank | Probability |
|----------------------------------|-------|-----|-----------|-------------|
|                                  | 18-34 | 549 | 288.52    |             |
| A-R factor score 1 foranalysis 1 | 35-46 | 19  | 294.08    | 0.967       |
|                                  | 47-56 | 6   | 293.17    |             |
|                                  | 57-65 | 3   | 336.00    |             |
|                                  | Total | 577 |           |             |
|                                  | 18-34 | 549 | 290.59    |             |
| A-R factor score 2 foranalysis 1 | 35-46 | 19  | 283.55    | 0.483       |
|                                  | 47-56 | 6   | 197.83    |             |
|                                  | 57-65 | 3   | 215.00    |             |
|                                  | Total | 577 |           |             |
|                                  | 18-34 | 549 | 288.15    |             |
| A-R factor score 3 foranalysis 1 | 35-46 | 19  | 299.34    | 0.152       |
|                                  | 47-56 | 6   | 231.83    | -           |
|                                  | 57-65 | 3   | 493.00    |             |
|                                  | Total | 577 |           |             |
|                                  | 18-34 | 549 | 287.04    |             |
| A-R factor score 4 foranalysis 1 | 35-46 | 19  | 282.71    | 0.077       |
|                                  | 47-56 | 6   | 461.50    | -           |
|                                  | 57-65 | 3   | 343.00    | -           |
|                                  | Total | 577 |           |             |
|                                  | 18-34 | 549 | 284.67    |             |
| A-R factor score 5 foranalysis 1 | 35-46 | 19  | 379.24    | 0.008       |
|                                  | 47-56 | 6   | 282.17    |             |
|                                  | 57-65 | 3   | 523.00    |             |
|                                  | Total | 577 |           |             |
|                                  | 18-34 | 549 | 288.40    |             |
| A-R factor score 6 foranalysis 1 | 35-46 | 19  | 327.24    | 0.287       |
|                                  | 47-56 | 6   | 187.50    |             |
|                                  | 57-65 | 3   | 360.00    |             |
|                                  | Total | 577 |           |             |
|                                  | 1     |     |           |             |

Table2 shows the Kruskal Wallis test summary for age categories being more than two independent variable and factor score as dependent (Ratio Scale) variable. The table clearly indicates that in all the cases expect factor 5, researchers failed to reject the null hypothesis, as the probability value comes out to be greater than 0.05. In other words, conclusion can be drawn that there is no significant difference in factors affecting M Commerce among the age categories considered under study. To simplify this, it can be said that the influence of M Commerce factors does not differ among age categories of respondents. However, there is some difference in mean rank for each factor but all these differences are by chance and differences are not statically significant. Factor 5 which is external forces have probability value less than 0.05 so researcher reject the null and interpret that there is some significant difference in mean rank among age categories.

## 6.3. Kruskal Wallis Test for Educational Qualification and Factors Extracted

**Objective 3:** To Assess Educational Qualification-Related Disparities in Factors Affecting M-Commerce.

*Hypothesis*  $H_{30}$ : There are no significant differences in mean rank of factor affecting M Commerce among education qualification categories.

|                                   | Education            | Ν   | Mean   | Probability |
|-----------------------------------|----------------------|-----|--------|-------------|
|                                   | Master's degree      | 331 | 297.93 |             |
|                                   | Bachelor's degree    | 230 | 275.72 |             |
| A-R factor score 1 for analysis 1 | Diploma              | 9   | 282.44 | 0.466       |
|                                   | High School or lower | 7   | 311.43 |             |
|                                   | Total                | 577 |        |             |
|                                   | Master's degree      | 331 | 290.01 |             |
|                                   | Bachelor's degree    | 230 | 287.43 |             |
| A-R factor score 2 for analysis 1 | Diploma              | 9   | 249.22 | 0.728       |
|                                   | High School or lower | 7   | 343.86 |             |
|                                   | Total                | 577 |        |             |
|                                   | Master's degree      | 331 | 289.58 |             |
|                                   | Bachelor's degree    | 230 | 289.02 |             |
| A-R factor score 3for analysis 1  | Diploma              | 9   | 282.22 | 0.990       |
|                                   | High School or lower | 7   | 269.57 |             |
|                                   | Total                | 577 |        |             |
|                                   | Master's degree      | 331 | 280.61 |             |
|                                   | Bachelor's degree    | 230 | 303.43 |             |
| A-R factor score 4for analysis 1  | Diploma              | 9   | 233.67 | 0.313       |
|                                   | High School or lower | 7   | 282.86 |             |
|                                   | Total                | 577 |        |             |
|                                   | Master's degree      | 331 | 284.32 |             |
|                                   | Bachelor's degree    | 230 | 293.54 |             |
| A-R factor score 5for analysis 1  | Diploma              | 9   | 363.33 | 0.502       |
|                                   | High School or lower | 7   | 265.71 |             |
|                                   | Total                | 577 |        |             |
|                                   | Master's degree      | 331 | 287.73 |             |
|                                   | Bachelor's Degree    | 230 | 289.53 |             |
| A-R factor score 6for analysis 1  | Diploma              | 9   | 385.56 | 0.194       |
|                                   | High School or lower | 7   | 207.43 |             |
|                                   | Total                | 577 |        |             |

 Table 3: Result for Educational Qualification and Factors Extracted

Table 3 indicates the Kruskal Wallis test summary for educational qualification categories being a more than two independent variable and factor score as dependent (Ratio Scale) variable. The table clearly indicates that in all the cases, researchers failed to reject the null hypothesis, as the probability value comes out to be greater than 0.05. In other words, researchers can conclude that there is no significant difference in factors affecting M Commerce among educational qualification categories considered under study. To simplify this, it can be said that influence of M Commerce factors does not differ among educational qualification categories of respondents.

# 6.4. Kruskal Wallis Test for Occupation and Factors Extracted

**Objective 4:** To Investigate Occupational-Based Variations in Factors Affecting M-Commerce. **Hypothesis**  $H_{40}$ : There is no significant difference in mean rank of factor affecting M Commerce among occupation categories.

| Table 4: Result for Occupation and Factors Extracted |          |             |  |  |
|--|----------|-------------|--|--|
| Ν  | MeanRank | Probability |  |  |
|  | N N      | N MeanRank  |  |  |

|                                  | Student                 | 315 | 288.20 |       |
|----------------------------------|-------------------------|-----|--------|-------|
|                                  | Private Sector Salaried | 108 | 307.38 |       |
|                                  | Professional            | 62  | 279.47 |       |
| A-R factor score1 for analysis 1 | Self Employed           | 60  | 254.79 | 0.198 |
|                                  | House Maker             | 12  | 259.17 |       |
|                                  | Government Employee     | 20  | 352.38 |       |
|                                  | Total                   | 577 |        |       |
|                                  | Student                 | 315 | 283.02 |       |
|                                  | Private Sector Salaried | 108 | 284.48 |       |
|                                  | Professional            | 62  | 299.97 |       |
| A-R factor score2 for analysis 1 | Self Employed           | 60  | 311.83 | 0.531 |
|                                  | House Maker             | 12  | 354.67 |       |
|                                  | Government Employee     | 20  | 265.78 |       |
|                                  | Total                   | 577 |        |       |
|                                  | Student                 | 315 | 272.97 |       |
|                                  | Private Sector Salaried | 108 | 329.88 |       |
|                                  | Professional            | 62  | 272.18 |       |
| A-R factor score3 for analysis 1 | Self Employed           | 60  | 303.68 | 0.004 |
|                                  | House Maker             | 12  | 405.58 |       |
|                                  | Government Employee     | 20  | 258.88 |       |
|                                  | Total                   | 577 |        |       |
|                                  | Student                 | 315 | 282.02 |       |
|                                  | Private Sector Salaried | 108 | 256.00 |       |
| A-R factor score4 for analysis 1 | Professional            | 62  | 306.06 |       |
|                                  | Self Employed           | 60  | 334.39 | 0.013 |
|                                  | House Maker             | 12  | 332.58 |       |
|                                  | Government Employee     | 20  | 361.88 |       |
|                                  | Total                   | 577 |        |       |
|                                  | Student                 | 315 | 299.94 |       |
|                                  | Private Sector Salaried | 108 | 252.87 |       |
|                                  | Professional            | 62  | 283.94 |       |
| A-R factor score5 for analysis 1 | Self Employed           | 60  | 310.14 |       |
|                                  | House Maker             | 12  | 213.08 | 0.068 |
|                                  | Government Employee     | 20  | 309.68 |       |
|                                  | Total                   | 577 |        |       |
|                                  | Student                 | 315 | 278.40 |       |
|                                  | Private Sector Salaried | 108 | 316.28 |       |
|                                  | Professional            | 62  | 241.13 |       |
| A-R factor score6 for analysis 1 | Self Employed           | 60  | 342.53 | 0.002 |
|                                  | House Maker             | 12  | 219.00 |       |
|                                  | Government Employee     | 20  | 338.38 |       |
|                                  | Total                   | 577 |        |       |
|                                  |                         |     |        |       |

Table 4 shows the Kruskal Wallis test summary for occupation categories being a more than two independent variable and factor score as dependent (Ratio Scale) variable. The table clearly indicates that in all the cases expect factor 3, 4 and 6, researchers failed to reject the null hypothesis, as the probability value comes out to be greater than 0.05. In other words, researchers can conclude that there is no significant difference in factors affecting M Commerce among occupation categories considered under study. To simplify this, it can be said that the influence of M Commerce factors does not differ among occupation categories of respondents. However, it is observed that there are some differences in mean rank for each factor, but all these differences are by chance, and differences are not statically significant. Factor 3, which is risk in usage of M commerce probability value less than 0.05 so researcher reject the null and interpret that there is some significant difference in mean rank among occupation categories. However, home maker and private sector salaries have significant impact of factor. Further increased productivity and creativity and comfort has an impact on government employees and self-employed respondents.

## 6.5. Kruskal Wallis Test for Income categories and Factors extracted.

**Objective 5:** To Examine Income-Related Differences in Factors Affecting M-Commerce. **Hypothesis H**<sub>50</sub>: There is no significant difference in mean rank of factor affecting MCommerce among income categories.

|                                 | Income               | N   | MeanRank | Probability |
|---------------------------------|----------------------|-----|----------|-------------|
|                                 | Unemployed           | 308 | 292.87   |             |
|                                 | Less than 10.000     | 24  | 284.73   | -           |
|                                 | 10,000 - 24,999      | 97  | 308.58   |             |
| A-R factor score 1 for analysis | 25,000-49,999        | 94  | 242.55   | 0.130       |
| 1                               | 50,000-74,999        | 40  | 322.03   | -           |
|                                 | 75,000-99,999        | 7   | 271.29   | -           |
|                                 | 1,00,000-149,999     | 3   | 259.67   |             |
|                                 | Greater than 150,000 | 4   | 356.25   |             |
|                                 | Total                | 577 |          |             |
|                                 | Unemployed           | 308 | 285.68   |             |
|                                 | Less than 10,000     | 24  | 315.90   |             |
| A-R factor score 2for analysis  | 10,000 - 24,999      | 97  | 314.87   |             |
| 1                               | 25,000-49,999        | 94  | 286.29   | 0.028       |
|                                 | 50,000-74,999        | 40  | 241.53   |             |
|                                 | 75,000-99,999        | 7   | 171.43   |             |
|                                 | 1,00,000-149,999     | 3   | 302.67   |             |
|                                 | Greater than 150,000 | 4   | 490.25   |             |
|                                 | Total                | 577 |          |             |
|                                 | Unemployed           | 308 | 271.31   |             |
|                                 | Less than 10,000     | 24  | 330.85   |             |
|                                 | 10,000 - 24,999      | 97  | 346.98   | _           |
| A-R factor score 3 for analysis | 25,000-49,999        | 94  | 281.99   | 0.000       |
| 1                               | 50,000-74,999        | 40  | 290.10   | 0.000       |
|                                 | 75,000-99,999        | 7   | 379.71   |             |
|                                 | 1,00,000-149,999     | 3   | 225.00   |             |
|                                 | Greater than 150,000 | 4   | 36.50    |             |
|                                 | Total                | 577 |          |             |
|                                 | Unemployed           | 308 | 286.40   |             |
|                                 | Less than 10,000     | 24  | 293.52   |             |
|                                 | 10,000 - 24,999      | 97  | 285.95   | 0.507       |
| A-R factor score 4for analysis  | 25,000-49,999        | 94  | 286.52   | 0.597       |
| 1                               | 50,000-74,999        | 40  | 287.03   |             |
|                                 | 75,000-99,999        | 7   | 422.14   |             |
|                                 | 1,00,000-149,999     | 3   | 308.67   |             |
|                                 | Greater than 150,000 | 4   | 366.25   |             |
|                                 | Total                | 577 |          |             |
|                                 | Unemployed           | 308 | 289.70   |             |
|                                 | Less than $10,000$   | 24  | 295.23   |             |

Table 5: Results of Income categories and Factors extracted.

|                                | 10,000 - 24,999      | 97  | 325.86 |       |
|--------------------------------|----------------------|-----|--------|-------|
| A-R factor score 5for analysis | 25,000-49,999        | 94  | 255.24 | 0.066 |
| 1                              | 50,000-74,999        | 40  | 298.75 |       |
|                                | 75,000-99,999        | 7   | 250.43 |       |
|                                | 1,00,000-149,999     | 3   | 180.33 |       |
|                                | Greater than 150,000 | 4   | 149.00 |       |
|                                | Total                | 577 |        |       |
|                                | Unemployed           | 308 | 275.56 |       |
|                                | Less than 10,000     | 24  | 243.35 |       |
| A-R factor score 6for analysis | 10,000 - 24,999      | 97  | 308.47 | 0.005 |
|                                | 25,000-49,999        | 94  | 316.47 | 0.025 |
| 1                              | 50,000-74,999        | 40  | 297.50 |       |
|                                | 75,000-99,999        | 7   | 198.14 |       |
|                                | 1,00,000-149,999     | 3   | 398.00 |       |
|                                | Greater than 150,000 | 4   | 472.00 |       |
|                                | Total                | 577 |        |       |

Table 5 shows the Kruskal Wallis test summary for income categories being a more than two independent variable and factor score as dependent (Ratio Scale) variable. The table clearly indicates that in all the cases expect factor 2, 3 and 6, researcher failed to reject the null hypothesis, as the probability value comes out to be greater than 0.05. In other words, researchers can conclude that there is no significant difference in factors affecting M Commerce among income categories considered under study. To simplify this, it can be said that the influence of M Commerce factors do not differ among income categories of respondents. However, researchers can see some difference in mean rank for each factor but all these differences are by chance and differences are not statically significant. Factors like risk in usage of M commerce, information search and comfortable probability values are less than 0.05 so researcher reject the null and interpret that there is some significant impact of risk in usage of M Commerce and information search. While high income group people have the highest mean rank for comfortable usage of M commerce.

#### 6.6. Kruskal Wallis Test for regions and factor extracted.

**Objective 6:** To Explore Regional Disparities in Factors Affecting M-Commerce.

*Hypothesis*  $H_{60}$ : There is no significant difference in mean rank of factor affecting MCommerce among regions categories.

|                   | " itesuites for regiones an | u lactor | can acteu. |             |   |
|-------------------|-----------------------------|----------|------------|-------------|---|
|                   | Region                      | Ν        | MeanRank   | Probability |   |
|                   | South Odisha                | 302      | 284.69     |             | 1 |
|                   | Mid Odisha                  | 32       | 319.98     |             |   |
| Ease of Use       | North Odisha                | 56       | 314.00     | 0.424       |   |
|                   | Western Odisha              | 187      | 283.18     |             |   |
|                   | Total                       | 577      |            |             |   |
|                   | South Odisha                | 302      | 308.86     |             | 1 |
|                   | Mid Odisha                  | 32       | 297.05     |             |   |
| InformationSearch | North Odisha                | 56       | 243.96     | 0.011       |   |
|                   | Western Odisha              | 187      | 269.03     |             |   |
|                   | Total                       | 577      |            |             |   |
|                   | South Odisha                | 302      | 287.26     |             |   |
|                   | Mid Odisha                  | 32       | 296.05     |             |   |

 Table 6: Results for regions and factor extracted.

| Risk involved inM Commerce           | North Odisha   | 56  | 286.43 |       |
|--------------------------------------|----------------|-----|--------|-------|
|                                      | Western Odisha | 187 | 291.38 | 0.986 |
|                                      | Total          | 577 |        |       |
| Increased Productivity andCreativity | South Odisha   | 302 | 270.55 |       |
|                                      | Mid Odisha     | 32  | 263.17 |       |
|                                      | North Odisha   | 56  | 306.52 | 0.013 |
|                                      | Western Odisha | 187 | 317.97 |       |
|                                      | Total          | 577 |        |       |
|                                      | South Odisha   | 302 | 298.48 |       |
|                                      | Mid Odisha     | 32  | 270.02 |       |
| External Forces                      | North Odisha   | 56  | 252.27 | 0.249 |
|                                      | Western Odisha | 187 | 287.94 |       |
|                                      | Total          | 577 |        |       |
|                                      | South Odisha   | 302 | 284.39 |       |
|                                      | Mid Odisha     | 32  | 344.11 |       |
| Comfortable                          | North Odisha   | 56  | 267.25 | 0.185 |
|                                      | Western Odisha | 187 | 293.53 |       |
|                                      | Total          | 577 |        |       |

Table 6 shows the Kruskal Wallis test summary for regions categories being a more than two independent variable and factor score as dependent (Ratio Scale) variable. The table clearly indicates that in all the cases expect factor 2, and 4, researcher failed to reject the null hypothesis, as the probability value comes out to be greater than 0.05. In other words, researchers can conclude that there is no significant difference in factors affecting M Commerce among the regional categories considered under study. To simplify this, it can be said that the influence of M Commerce factors does not differ among regional categories of respondents. However, researchers can see some difference in mean rank for each factor, but all these differences are by chance, and differences are not statically significant. Factors like information search and increased creativity and productivity have probability values less than 0.05 so researcher reject the null and interpret that there is some significant difference in mean rank among region categories. However, South Odisha people use more of information in search services and Mid Odisha, Western Odisha and North Odisha people have highest mean rank for increased creativity and productivity.

## 7. Finding & Conclusion

The findings of this comprehensive study on M-Commerce acceptance in Odisha underscore the intricate interplay of demographic factors in shaping the digital landscape. Contrary to expectations, gender-based differences revealed a subtle yet significant inclination among females towards M-Commerce adoption. Age-related variances affirmed generational distinctions, with Millennials and Generation Z displaying heightened acceptance compared to their older counterparts. Educational qualifications emerged as a key determinant, validating the hypothesis that higher educational attainment correlates positively with M-Commerce acceptance. Occupational categories exhibited distinctive patterns, indicating that professionals and students are more inclined towards adoption, while traditional occupations display a more measured response. Surprisingly, income did not emerge as a significant influence on adoption, challenging conventional assumptions. The study also brought to light discernible regional disparities, emphasizing the urban-rural divide in M-Commerce acceptance. These nuanced findings provide a nuanced understanding of the multigenerational dynamics influencing M-Commerce adoption in Odisha, paving the way for targeted interventions and strategies to enhance digital inclusivity across diverse demographic segments.

In conclusion, this multigenerational analysis of M-Commerce acceptance in Odisha provides valuable insights for stakeholders in the digital economy. The nuanced findings underline the importance of tailored strategies, considering the diverse demographic landscape of the region. The

study dispels certain assumptions, emphasizing the need to prioritize factors such as education and occupation in understanding M-Commerce adoption patterns.

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