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**JAIPURIA INSTITUTE OF MANAGEMENT, NOIDA**

**PGDM (Reappear/Improvement)**

**THIRD TRIMESTER (BATCH 2023-25)**

**END TERM EXAMINATION, JULY 2024**

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| --- | --- | --- | --- |
| Course Name | **Business Research Methods** | Course Code | **20503** |
| Max. Time | **2 Hours** | Max. Marks | **40 MM** |

INSTRUCTIONS:

1. **All questions are compulsory.**
2. **Attempt questions as per sequence & mention the correct question and subpart number in word file and upload on Moodle.**
3. **For Question no. 3, Data Set is available on Moodle.**

**d. Overall Permissible Plagiarism is 10%. Marks will be deducted if the Plagiarism is above the permissible limit. The Penalty Clause is: 15-20% - Minus 3 Marks, above 30%**

**Q. No. 1** **Case Study: The Journey of Nexus Electronics**

In the heart of Silicon Valley, a company called Nexus Electronics thrived amidst the bustling technology hub. Nexus Electronics, known for its innovative gadgets, was the brainchild of a visionary entrepreneur, Alex. Over the years, Nexus had carved out a niche in the competitive tech market, but recently, Alex noticed a change in the wind. New competitors were entering the market with cutting-edge technology and sleek designs, capturing the attention of tech enthusiasts.

Determined to understand the factors driving the success of these competitors, Alex embarked on a journey of discovery. Walking through the vibrant streets of Silicon Valley, Alex visited various tech stores and engaged in conversations with potential customers. Each store told a different story, showcasing unique products that catered to specific customer needs.

Intrigued by the varying customer preferences, Alex decided to delve deeper into understanding the dynamics at play. The first step was to gather preliminary insights into customer preferences and market trends. Alex conducted informal interviews with tech enthusiasts and store owners, capturing the essence of what made certain products stand out. This phase of the research was exploratory, aimed at identifying the underlying factors influencing customer choices.

Armed with initial insights, Alex moved on to the next phase: descriptive research. Nexus Electronics conducted a detailed survey, reaching out to a diverse group of tech consumers. The survey included questions about their preferences, buying behaviors, and perceptions of Nexus Electronics compared to its competitors. The data collected painted a vivid picture of the current market landscape, revealing trends and patterns that were previously unnoticed.

However, Alex's curiosity didn't stop there. To truly understand the causal relationships behind customer preferences, Alex designed a series of experiments. For instance, Nexus Electronics launched a limited-time promotion for a new product line, varying the promotional strategies across different regions. By analyzing the sales data and customer feedback, Alex aimed to uncover the cause-and-effect relationships between promotional strategies and customer purchasing behavior.

One sunny afternoon, Alex walked into a bustling tech café. The aroma of freshly brewed coffee filled the air, and the café buzzed with tech enthusiasts discussing the latest gadgets. As Alex sipped a latte, he observed the crowd, noting how certain products sparked more excitement than others. This real-world observation complemented the data collected, providing a holistic view of customer behavior.

As the research progressed, Alex's findings revealed the true essence of Nexus Electronics' success: the connection between innovation and customer engagement. It wasn't just about having the latest technology; it was about creating a community of tech enthusiasts who felt valued and heard. With this newfound insight, Alex decided to focus on community-building initiatives, hosting tech workshops and product launch events that brought people together.

By combining exploratory, descriptive, and causal research, Alex was able to transform Nexus Electronics, making it more resilient in the face of competition. The journey of discovery not only provided valuable insights but also reaffirmed the importance of understanding customer needs in the ever-evolving tech industry.

**Questions:**

**a)** Identify a situation from the scenario where basic research could be conducted. Explain the significance of conducting basic research in this context and how it can contribute to the theoretical understanding of the market dynamics. Then, propose how exploratory, descriptive, or causal research could be applied in this context if there is scope for it. **(Marks 7)**

**b)** Identify a situation from the scenario where applied research could be conducted. Explain the importance of conducting applied research in this context and how it can provide practical solutions for Nexus Electronics. Then, propose how exploratory, descriptive, or causal research could be applied in this context if there is scope for it. **(Marks 7)**

**Q. No. 2**

**For the case provided in Question 1, answer the following questions:**

a). Plan at least two research objectives relevant to the scenario where hypotheses can be written.

**(Marks 4)**.

b). Construct one question each for emotional, cognitive, and behavioral components of attitude.

**(Marks 4)**

c). Identify a suitable sampling technique (for objectives planed in question 2.a) and outline the procedure. **(Marks 4)**

**Q. No. 3**

In the competitive landscape of the audio equipment industry, SoundWave Audio, a rising company specializing in high-quality headphones, faced the challenge of understanding the factors driving customer satisfaction and purchase intentions. Jessica, the marketing manager, decided to conduct a comprehensive study to uncover the key elements influencing customer ratings.

To gather insightful data, Jessica designed a survey targeting current users of SoundWave's flagship headphones. The survey included questions on various aspects such as sound quality, comfort, battery life, durability, and price. Customers were asked to rate each factor on a scale from 1 to 10. Additionally, they provided an overall satisfaction rating, also on a scale from 1 to 10.

Jessica collected responses from 15 users and aimed to analyze how these independent factors influenced the overall satisfaction. Her goal was to derive actionable insights that could guide future product development and marketing strategies. The collected data is as follows:

| **User** | **Sound****Quality** | **Comfort** | **Battery****Life** | **Durability** | **Price** | **Overall****Satisfaction** |
| --- | --- | --- | --- | --- | --- | --- |
| 1 | 8 | 9 | 7 | 8 | 6 | 8 |
| 2 | 7 | 8 | 8 | 9 | 7 | 7 |
| 3 | 9 | 7 | 9 | 8 | 8 | 9 |
| 4 | 6 | 6 | 7 | 6 | 5 | 6 |
| 5 | 8 | 8 | 8 | 7 | 6 | 8 |
| 6 | 9 | 9 | 8 | 9 | 7 | 9 |
| 7 | 7 | 7 | 7 | 7 | 6 | 7 |
| 8 | 8 | 8 | 9 | 8 | 7 | 8 |
| 9 | 6 | 7 | 6 | 6 | 5 | 6 |
| 10 | 9 | 9 | 9 | 9 | 8 | 9 |
| 11 | 7 | 8 | 8 | 8 | 7 | 8 |
| 12 | 8 | 7 | 8 | 7 | 6 | 7 |
| 13 | 9 | 8 | 9 | 8 | 7 | 9 |
| 14 | 6 | 7 | 7 | 6 | 5 | 7 |
| 15 | 8 | 8 | 9 | 8 | 6 | 8 |

**Note: Above Data Set is available on Moodle**

Jessica decided to utilize this data to examine the combined impact of all the factors on overall satisfaction. She knew that a thorough analysis would reveal which aspects of the product had the most significant influence on customer satisfaction, guiding her in making data-driven decisions for marketing and product development.

**Questions:**

1. Interpret the output and evaluate to determine the key drivers of satisfaction. Given the analysis results, what specific strategies would you recommend to Jessica for future product development and marketing campaigns? **(Marks 8)**
2. Assess multicollinearity diagnostics and implement appropriate measures for mitigation if detected. **(Marks 6)**