

Report on factors that affect the consumer behaviour towards purchase of a headphones/earphones

Submitted to
Dr Prantosh J. Banerjee
For
The Advanced Market Research Course

**Submitted by
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Letter of Transmittal

Group 8,
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To

Dr Prantosh Banerjee,

Subject: Report on factors that affect consumer behaviour towards purchase of a headphone/earphone

Dear Dr Banerjee,

We are thankful to you for giving us an opportunity to work under your guidance on this Marketing Research Project. As per your direction, we attach herewith our report on factors that influence the behaviour of customers towards purchase of a headphone/earphone. We understand the significance of the task that you have asked us to undertake, the importance that needs to be associated to the project and the ramifications of producing an underwhelming/copied project report. We have therefore included all essential information regarding how the research was actually carried out and how the recommendations made by you were implemented.

We look forward to learning from you again.

Thanking You,

Yours Sincerely,

(Group 8)

Enclosure: Report on factors that affect the consumer behaviour towards purchase of a headphone/earphone

Executive Summary

The management objective of the research group was to determine the factors that influence the consumer purchase behaviour for a headphone/earphone. The research group identified 5 research objectives which would exhaustively cover the management objective. Next, exploratory research was done in the form of 2 focus group discussions and 2 depth interviews from where numerous variables of interest were determined and identified. Certain information gaps were found for which there was need for primary information. The next step involved preparing a questionnaire to find out sufficient data to plug-in these information gaps. The questions were framed in nominal scale and Likert scale was used as the chosen attitude scale. The sampling plan was convenience sampling. Subsequently, the research group went out to collect responses from the general public. Next, the data collected in the previous stage was prepared for analysis with the help of editing, coding and transcribing. Since the questions were in nominal scale, so the appropriate analysis technique followed them. Three techniques were used for the process, Clustering, Annova and Chi-Squared tests and the results and findings of the analysis process was correlated with each R.O. and then inferences were drawn, most of which stressed on the fact that most of the variables were independent in nature and there was less of a dependence relation between them. The report was subsequently compiled along with the applicability and limitations for future research.

Table of Contents

Title.....	.....
1. Problem Definition .....	.....
2. Approach to Solving the Problem .....	.....
3. Research Design.....	.....
4. Data Collection.....	.....
5. Scaling techniques; Questionnaire development and pretesting.....	.....
6. Sampling Plan .....	.....
7. Fieldwork Done.....	.....
8. Data Analysis .....	.....
9. Results.....	.....
10. Limitations of Present Research .....	.....

1. Problem Definition

1.1 Background to the Problem

The global earphones and headphones market is expected to grow at a CAGR of 7.31% during 2017–2023 and cross \$20 billion in revenue by 2023. As mobile devices are getting affordable, the demand for entry-level headphones is also increasing globally. On the other side, there is also an enormous demand for specialized, high-end, best sound quality earphones and headphones. The increase in the adoption is attributed to the fact that several people are tied to the smart devices, such as music players, mobiles, and tablets, for a substantial portion of their day, primarily, for listening music, watching videos, or playing games. This project/study is conducted to understand the important demographic, psychological and socio-economic factors which influence the consumer purchase behavior for earphones.

1.2 Statement of the Problem

The present research is an effort to understand the critical demographic, psychological and socio-economic factors which influence the purchase behaviour for headphones across various segments.

2. Approach to Solving the Problem

The following approach has been followed in order to solve this problem.

Step 1: Stating the Management Objective (M.O.)

MO: To understand the critical demographic, psychological and socio-economic factors which influence the purchase behaviour for headphones across various segments.

Step 2:Crystallizing into Research Objectives (R.O.)

- R.O. 1 - To determine the parameters for evaluating brand perceptions amongst consumers.
- R.O. 2 - To determine the patterns observed in buying behaviour for the same group of consumers while shopping through different channels.
- R.O. 3 - To determine factors that influence the customer's willingness to pay.
- R.O. 4 - To determine the reasons that make customers buy specific brands.
- R.O. 5 - To identify the most critical factors that influence a customer to replace their headphones.

Step 3:Identify information needs of each R.O.

We conducted an exploratory research to identify information needs (variables of interest) . Performed two focus group discussions and two depth interviews in order to identify variables of interest.

Step 4: Collection of Secondary data

A plethora of work has been done trying to identify the important attributes that affect customers' purchase towards a headphone/earphone. We collected data from published sources in order to gather information needs.

Step 5: Information Gap Analysis

For each research objective, we listed out the information needs and data obtained. During this , we found out that there is information gap and thus primary research needs to be conducted.

Step 6: Designing of Questionnaire with scales for information gap

We designed a questionnaire consisting of around 60 questions using the Likert scale in order to fulfill the information gaps.

Step 7: Create Sampling plan

We created a sample plan and decided on the element, sample unit, geographic extent and time. We use judgemental sampling in our research.

Step 8: Collect Primary Data

We collected primary data through survey and questionnaire.

Step 9: Data preparation for analysis

After collecting primary data, we loaded it into SPSS and worked on data preparation i.e. data reduction. The steps involved are field controls, editing, coding, transcribing.

Step 10: Data Analysis

The measurement scale used were a mixture of Nominal, Ordinal, Ratio and Interval. Therefore we performed Crosstabs, Annova, Clustering and Discriminant Analysis.

Step 11: Interpretation and findings in line with each RO

After performing data analysis, we listed out the interpretations and findings in line with each research objective.

Step 12: Report preparation

3. Research Design

3.1 Type of Research Design

The findings of this report are based on respondents from in and around the city of Sambalpur. Judgement sampling was done to determine the pool of respondents. Although an online survey methodology was considered, given the scale and reach such a survey could provide, the researchers decided to go ahead with a person-to-person survey. In choosing the sample, the researchers' effort was to have a sample that is representative of the larger population, which comprises 'all who buy headphone/earphone.' The disadvantage of Judgement Sampling that it depends too much on the judgement of the researchers was well-understood and cared for. The research design, the cross-sectional descriptive design, was chosen for its simplicity and understand ability. A series of crosstabs, Annova, Clustering and Discriminant Analysis were carried out to understand the purchase orientation of customers for a headphone/earphone on various factors such as demographic factors, quality, warranty etc.

3.2 Information Needs

The present research was carried out to understand what factors affect the behaviour of consumers purchase towards headphone/earphone. The researchers, by way of this research wished to know if there are patterns of consumer behaviour which if utilized properly can help to identify the right buyers, customize their services better to cater to the requirements of different buyers, and create maximum sales and profits out of each subsequent customer.

4. Data Collection

4.1 Data Collection from Secondary Sources

A study was conducted by Noppawan Asavachaiporn (2006), where the crucial findings are that the three proposed variables which are the subjective norm, perceive behaviour control and price have a strong relationship with purchase intention towards headphones. Furthermore, attitude and brand consciousness have a moderate relationship with purchase intention towards headphones.

The researchers suggest recommendations based on results from this study that company selling headphones should prioritize the execution plan by setting music events or activities to invite customers' friends to join or to do exercise together, increasing price to get more profit to fulfil the limitations of company selling headphones, setting headphones expertise campaign to match customer preference, and promoting headphones brand by brand ambassador or supporting by crucial opinion leaders who are famous in music industry, artist and singer.

Another study conducted by Hoffman and Tessa(2009), suggested that online scarcity messages do not increase purchase intention, in contrast to previous offline studies. The moderating role of scepticism on the scarcity message and purchase intention relationship indicates that consumers are suspicious of scarcity messages in an online context.

An extensive study conducted by Gaye and Holmquist(2005) suggested that Mobile music is a new field concerned with musical interaction in mobile settings, using portable technology. Mobile music creates a tension between music and place as well as new relationships between musician, listener, and music.

Research conducted by Mathew Hickey(2016) says that to visit a modern office place is to walk into a room with a dozen songs playing simultaneously but to hear none of them. Up to half of younger workers listen to music on their headphones, and the vast majority thinks it makes us better at our jobs. In survey after survey, we report with confidence that music makes us happier, better at concentrating, and more productive. The world has moved from a farming/manufacturing economy to a service economy, and more jobs "demand higher levels of concentration, reflection and creativity." This leads to a logistical answer: With 70 per cent of office workers in cubicles or open work spaces, it's more important to create one's cocoon of sound. That brings us to a psychological answer: There is evidence that music relaxes our muscles, improves our mood, and can even moderately reduce blood pressure, heart rate, and anxiety. What music steals in acute concentration, it returns to us in the form of good vibes.

That brings us finally to our final cultural answer: Headphones give us absolute control over our audio-environment, allowing us to privatize our public spaces. This is an important development for dense office environments in a service economy. But it also represents nothing less than a fundamental shift in humans' basic relationship to music.

4.2 Data Collection from Primary Sources

After secondary data is collected and information needs are identified, we looked for information gap present. We developed a questionnaire in order to collect primary data and conducted a survey. The questionnaire was prepared exhaustively keeping in mind no bias is present and Likert scale was used. The responses were taken from a diverse group of people. A sampling plan was framed in line with the questionnaire. The fieldwork is done in order to gather the data.

5. Scaling techniques; Questionnaire development and pretesting

The research objectives that were set served as the core drivers behind the formation of the questionnaire. The questions were formulated in a way such that the respondent eventually starts getting accustomed to the topic. The research is designed to obtain a very gradual approach to understanding the behavior of consumers, in contrast to bombarding the objectives in a very crude manner. This enables us to recognize the patterns that emerge from the data analysis without influencing the thought process of the respondents in any way whatsoever. SPSS is being used to compile and make sense of the raw and unorganized data. The initial questions that were formulated were repeatedly edited and modified to a higher degree of precision and convenience, to make the data easier to handle. This was done by multiple sequences of dry runs that were conducted amongst the members of the group and preliminary respondents chose in random from outside the research group as well. To understand the consumer, it was essential to follow the way he/she thinks. This resulted in the formulation of questions that were extremely easy to comprehend and understand at the same time making it easier for the research team to handle the responses.

The scale for questionnaire development used is 5 points Likert Scale in order to gather respondents agreement/disagreement to statements prepared related to our research.

5.1 Changes made in Questionnaire based on Pre-Test

1. Mentioned “earphones/headphones” wherever only “earphones” or “headphones” was there in the questions. This removed ambiguity present in the questions.
2. Removed 4 of the questions which were not aligned with the R.O.s
3. Changed the number of options for some questions to five so as to make questionnaire more homogenous.

6. Sampling Plan

A non-probability-based sampling method was used. Preposive sampling was used to gather data. The researchers had visited the nearest retail stores and picked shoppers who were comfortable with devoting time to the cause.

7. Fieldwork Done

Usage of online media was limited as we capturing the emotions of the consumers was essential to understand the behavioural patterns. Hence face to face direct interviews were set up along with the questionnaire. However, the detailed nature of the questionnaire was too cumbersome for most shoppers who had come to finish their shopping needs. Hence, the number of samples obtained was extremely low leading to biasing of results. With the location being a tier 2 city, language of questionnaire was a problem even with extensive back testing as the content had gotten lost in the translation. Since the amount of people who would be a great fit to answer the questionnaire was very limited, the data collected was not enough to substantially prove or disprove hypotheses. This problem can be solved by expanding the research into more number of cities coupled with a larger research team to cover as much ground as possible. This would ensure enough diversity in the sample and hence remove any biases in the responses and data analysis.

8. Data Analysis

The data obtained is first loaded into SPSS and data preparation is performed.

8.1 Plan for data analysis

The data consist of around sixty questions ranging from demographics to factors that affect purchase pattern. Among the data present, we decided to select around 15 factors to analyze whether these factors have any substantial impact towards the purchase of headphones/earphones. Apart from this, we also found out which of the factors were substantial and created customer profiles for effective segmentation.

8.2 Methods used

In the first series of tests, the dependent and independent variables were both Nominal/Ordinal. So we used Chi-Squared tests to test the hypotheses.

In the second series of tests, The independent variable is Nominal/Ordinal in nature and the dependent variable is Interval in nature. So one way Annova was used to analyse the data.

In the third series of tests, we used a Likert scale responses to try and create customer segments based on behavioural and psychographic variables. The number of clusters identified using hierarchical clustering and the significant variables along with the actual clusters were identified using K-means clustering.

9. Results

1. Clustering

No of clusters: 4

The clusters were hence identified, described, and labelled accordingly.

The 4 clusters identified are:

- Casual Users
- Music Enthusiasts
- Circumstantial Users
- Orthodox

Final Cluster Centers				
	Cluster			
	1	2	3	4
comfort	1.38	1.31	3.17	5.00
bluetooth	3.75	3.15	2.17	5.00
good_appearance	3.63	1.92	3.50	5.00
bass	2.88	2.00	2.83	5.00
treble	3.25	2.54	2.83	4.00
online_over_offline	2.00	1.69	3.50	4.00
repeat_purchase	2.25	3.23	4.00	5.00
all_traits_equal	2.00	1.54	3.50	5.00
brand_conscious	4.00	2.46	3.33	5.00
indoor_vs_outdoor	4.13	2.08	2.50	5.00
product_research	2.63	1.31	3.00	5.00
need_mic	1.25	1.08	3.17	5.00
follow_trend	4.25	2.23	2.17	5.00
wait_discount	3.38	1.85	3.33	5.00
genre_dependent	4.38	3.23	2.33	5.00

[illegible]

2. Chi-square Tests

Chi-Square Tests			
	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	9.032 ^a	9	.434
Likelihood Ratio	9.619	9	.382
N of Valid Cases	28		

2. H_0 – Gender has no relation to price of current earphones

Chi-Square Tests

	Value	df	Asymptotic Significance (2- sided)
Pearson Chi-Square	2.245 ^a	4	.691
Likelihood Ratio	3.388	4	.495
N of Valid Cases	28		

Result- Fail to reject null hypothesis

3. One Way Anova

H_0 = There is no significant difference in effect of genre of music a person listens to on buying earphones across the different age groups.

➔ **Oneway**

Descriptives

The genre of music I like plays an important factor while buy

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
16 to 25	23	3.5217	1.27456	.26576	2.9706	4.0729	1.00	5.00
26 to 35	3	3.0000	2.00000	1.15470	-1.9683	7.9683	1.00	5.00
36 to 45	1	3.0000	.	.	.	.	3.00	3.00
More than 45	1	3.0000	.	.	.	.	3.00	3.00
Total	28	3.4286	1.28894	.24359	2.9288	3.9284	1.00	5.00

ANOVA

The genre of music I like plays an important factor while buy

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.118	3	.373	.204	.892
Within Groups	43.739	24	1.822		
Total	44.857	27			

Result: As the p-value is really high (0.892) we fail to reject the null hypothesis.

10. Limitations and Applicability of Present Research

Limitations of the research

Usage of online media was limited as we capturing the emotions of the consumers was essential to understand the behavioural patterns. Hence face to face direct interviews were set up along with the questionnaire. However, the detailed nature of the questionnaire was too cumbersome for most shoppers who had come to finish their shopping needs. Hence, the number of samples obtained was extremely low leading to biasing of results. With the location being a tier 2 city, language of questionnaire was a problem even with extensive back testing as the content had gotten lost in the translation. Since the amount of people who would be a great fit to answer the questionnaire was very limited, the data collected was not enough to substantially prove or disprove hypotheses. This problem can be solved by expanding the research into more number of cities coupled with a larger research team to cover as much ground as possible. This would ensure enough diversity in the sample and hence remove any biases in the responses and data analysis.

Applicability of the research

This research can be used to understand the behavioural patterns of the consumers. This knowledge will be extremely useful when the initial product design plans are being made. Depending upon various factors such as location, target audience and income groups, the products can be custom tailored to match the requirements and expectations of the consumers to increase profitability. The research can also be utilised to understand the nature and tastes of consumers who prefer to buy certain types of earphones/headphones in certain types of store formats only. Given enough data, this research can improve the sales of the earphone brands by accurately describing the passionate behaviour exhibited by consumers when it comes to shopping for earphones/headphones. Leading electronic companies can use this research to decide the pricing and availability of their products in different store formats and locations. Retail firms can understand the features that influence shoppers to buy more and make the experience better such as product positioning and store design.

11. Conclusion and Recommendations

The primary objective of the present study was to understand the critical demographic, psychological and socio-economic factors which influence the purchase behaviour for headphones across various segments. The results of this study revealed that many factors and consumer buying behaviours which are generally thought to be related are actually unrelated. One specific finding is that the amount of effect the genre of music a person listens to on the purchase of earphones is similar across different age groups, contrary to the popular belief that younger generations love to purchase earphones which are more suited for the trending songs.

The study helped identify 4 customer segments for earphones viz. “Causal Users”, “Music Enthusiasts”, “Circumstantial Users”, and “Orthodox Users”. These 4 segments are differentiated based on 12 different parameters. By taking a close look at the profiles, the segment in which a particular firm is interested in can be targeted more precisely. For example, “Circumstantial Users” are a specific type of users who use whatever earphones they get their hands on (just to fulfil the need). Their neutral attitude towards most of the considered parameters is highlighted through the study.

The current findings, however, have the significant drawback of low sample size and judgement sampling. The researchers therefore recommend a larger sample size in future market research studies.

Appendices

1. Summary of Exploratory Research

FGD1

The focus group discussion was conducted among five people belonging from different states to maintain the diversity. It has been observed through this FGD that customer's willingness to pay is majorly dependent on the factors like quality of the earphone. The buyer is not brand loyal but high involvement customer. In many of the cases, they want to try out the new and upgraded technology available in the market. For all the customer's online reviews are critical while making the purchase decision after that buying from the online channel while some prefer to have hands-on experience before investing into headphones. The most critical factors that influence the customer to headphones are bass, beats, and noise cancellation. Some buyers are mostly inclined towards flagship brands and are ready to pay a premium price. The factors that influence the customer to replace the headphones is wear and tear of the product also discounts play a significant role in purchasing pattern as a customer do not mind having an extra pair of headphone at a discounted price.

FGD2

The focus group discussion showed how the participants had a varying range of uses for earphones ranging from common tasks like watching movies and listening to music to more specialized needs such as for gaming. While selecting headphones, some critical factors discussed include bass quality, noise cancellation capability, 3D sound capability and the durability of the headphones. The participants had a similar price range they were willing to pay for headphones not exceeding Rs.5000. Another important factor considered is the presence of a detachable cable. Most of the participants found that they had to replace their headphones due to cable getting damaged. The participants unanimously agreed that they would always prefer to buy headphones online because they can compare various models on specifications and price, see reviews and get better deals. Offline stores are only considered in the event of special edition releases or the case emergencies such as travel emergencies. The main influencers amongst the group were found to be online blogs and forums which gave in-depth reviews of different headphone segments and also reviews of other customers on E-commerce websites. Other influencers also include friends, family and gaming Cafés.

The ability to try out headphones physically before buying them does not affect the participant's willingness to pay for the product

DI1

The interviewee preferred earphones over headphones as it provides mobility over the other and can be used while resting also. Headphones are high in price as compared to earphones and have certain features as Bluetooth enabled. Nowadays, headphones are becoming a status symbol, and people like to flash it in their peer group. Different type of music determines the type of earphone that is purchased. People want an earphone of good quality sound in which the bass, timber and vocals are in synchronization. The presence of mic in an earphone act as a plus point while purchasing an earphone but if the other earphone without a mic is of good quality then people go for it. Generally, the replacement type of an earphone is within six to seven months. Price is considered as an important factor while buying an earphone as the interviewee is a student and prefer below the range of 1500. As the person is a tech-savvy guy, reviews and blogs act as an influencer in the purchase decision of the buyer. If a person is looking for some high- end product, then he/she prefer some technologies over other, like German technologies earphones are considered to be superior, but now a lot of companies from Japan and Bose from the US are catching up fast.

DI2

The interviewee preferred headphones over earphones as it provides more comfort over the other and using earphones over a time results in pain to ears. On the other hand, headphones have a good quality of speakers, so it improves the sound quality and enlightens your mood much faster. Headphones should be light enough Different type of music determines the type of earphone that is purchased. The presence of mic in an earphone act as a plus point while purchasing an earphone but if the other earphone without a mic is of good quality then people go for it. Generally, the replacement type of an earphone is within six to seven months. Price is considered as an important factor while buying an earphone as the interviewee is a student and prefer below the range of 3000. The country of origin doesn't matter to the person, and he generally checks for technical specifications.

2. Questionnaire

The entire questionnaire along with the pre-test and revisions has been attached as a separate PDF due to the volume of the questions. There are 63 questions overall in the survey.

3. Data sheet

The transcribed and cleaned data sheets along with respective variables which are labelled are attached along with this PDF in a separate SPSS runnable SAV file.