A STUDY ON THE POPULARITY OF KOCHI 1 SMART CARD

Nithin Ninan Thomas

Abstract: Kochi metro is the metro rail project operating in the state of Kerala. This metro project is one of the fastest completed metro rail project in the country. The main feature of this metro is the Kochi 1 smart card. This card is an integrated card which can be used for travelling in metro rail, water metro, buses, cabs and other modes of transportation in the city. This research work is intended to study the popularity of Kochi 1 metro smart card. The main objectives are to evaluate the benefits associated with this card, to identify the success rate of the card, to study the factors influencing the purchase of the card etc. Primary data is collected from 50 respondents through structured questionnaire and secondary data is collected from various published sources. Convenience sampling is the sampling method used in this study.

INTRODUCTION

Kochi metro is a recently implemented project in the transportation sector of Kerala. Kochi metro is the first metro in the country that connects rail, road and water transport facilities. The first phase is being set up at an estimated cost of Rs.51.81 billion. Former Prime Minister Dr. Manmohan Singh laid the foundation stone of this project in 2012.The first phase from Aluva to Palarivattam was opened to public on 17th June,2017 by Narendra Modi, the Prime Minister of India. Kochi metro includes the technology for driverless trains and is hoping to implement this in near future .KMRL is lauded for its decision to employ Kudumbasree workers and also the workers from transgender community. It is also involved in sustainable initiatives with the introduction of non-motorized transport corridors in the city, installation of solar panels for power and vertical garden etc. One of the most important feature of Kochi metro is the implementation of Kochi 1 smart card. This debit card along with the Kochi 1 mobile app will allow passengers to access all modes of transportation as well as utilised for mercantile and internet transactions. Every metro station is designed on a specific theme around Kerala culture and geography.

Kochi 1 is a prepaid smart card. To begin with, it can be used only to travel in metro trains. Subsequently, the commuters can use it on buses and ferries and even to pay utility bills. Efforts are on to rope in KSEB and KWA so that people can pay power and water bills using this card. KMRL plans to hold melas near the metro stations to encourage the people to purchase and use the card. The card will be priced at Rs.150 and can be bought from metro stations by providing minimum details like phone number and date of birth. The first top up will be of Rs.200.Passengers can do transactions upto Rs.10000 every month for every card. The transactions can be raised to Rs.100000 per month after submission of necessary ID proof. Subsequent recharges can be done from Rs.100 onwards. The metro agency is also planning to set up Kiosks to popularise this card.

The smart card uses chip card technology for making payments, which is a technical standard for smart cards also used by Europay, Master card, Visa etc. The cards are launched in association with Axis bank. It is a prepaid Rupay card. If you own this card, you don't have to wait in the queue to buy metro tickets. Every time you use this card, an appropriate amount is deducted from your balance. This card can be used in any shops or e-commerce websites where Rupay cards are accepted. Rupay cards are the Indian version of payment cards similar to VISA and Master Card. Indian government is taking several measures to promote Rupay cards. This card is issued to a person's name just like any other credit or debit cards, you are not expected to give your Kochi 1 smart card to anyone else. Only one person can travel with this card at a time. If multiple people are travelling, you can use this card for one person, for the rest of the people, you can use the card to purchase extra tickets. Kochi 1 smart card is valid for three years from the date of issue. Discount at the rate of 20% is allowed to card holders. The primary purpose of this card is to make the ticketing system smooth and convenient for the passengers. Axis bank has signed deals with thousands of restaurants and offers 15% or more discount on selected restaurants when you use the Kochi 1 smart card. The card holders can use Kochi metro official app to view the balance of the linked card or visit any station and show your card in ticket counter to check the balance. Kochi metro is truly one of the best metro in the country and Kochi 1 smart card is a main feature of it.

Objectives of the study

a) To study and identify the popularity of Kochi-1 Smart card.

b) To evaluate the benefits associated with Kochi-1 Smart card.

c) To identify the success rate of the card (on the basis of number of cards issued by the Axis bank)

d) To study the factor influencing the purchase of this card.

e) To analyse the frequency of travelling, growth of business and future plans of the customers with reference to Kochi-1 Smart card.

f) To identify which promotional strategies are used to influence the purchase of this card.

Scope of the study

This study has a broader scope and relevance in the current scenario. A study on the popularity and significance of Kochi 1 smart card, helps in identifying the benefits received by the public from this innovative card. This type of card is used only by Kochi Metro Rail Corporation. The selection of respondents is limited to the respondents of Kochi Corporation. So all the beneficiaries of this card are not covered.

Statement of the problem

Kochi metro is a project which is implemented recently so that it takes much more time to achieve complete effectiveness. The issue of Kochi-1 Smart card commenced only recently. Only a nominal percentage of Kochi residents are using this card now. This card will be successful only if all the passengers come to know about this card and start using it for making purchases. The slow pace of implementation and distribution of Kochi-1 Smart card is a main drawback. Hence it was necessary to study about "the popularity of Kochi-1 Smart card among the residents of Kochi corporation."

Research Methodology

Data Collection

The study is based on survey method. Both primary and secondary data has been used in the study.

- Primary data

Primary data is collected from the passengers of Kochi metro rail with the help of structured questionnaire.

- Secondary data

Secondary data is collected from various websites, articles, digest, Kochi 1 card usage manual etc.

sample size:

The sample was collected from 50 respondents who are the users of Kochi 1 smart card.

Sampling Technique

Convenience sampling is the sampling technique used in this study.

Tools for analysis of data

Percentage Analysis:

Percentages are often used in data presentation to simplify numbers. Reducing all of them to a range of '1 to 100' range. This tool is used to determine the percentage of respondents who favour a particular opinion or in contrast.

The following tools are used for data presentation:

1. Bar diagrams – A bar graph is a chart that uses either horizontal or vertical bars to show comparison among categories. One axis of the chart shows the specific categories being compared, and the other axis represent a discrete value.

2. Pie diagrams – A pie chart is a circular chart divided into sectors, illustrating numerical proportion.

Limitations

This study is not free from limitations. The study faces various limitations and constraints. They are,

- This study is based on primary and secondary data. So the limitations of the source affects the study as well.
- This study is contained only to a limited area and hence the project cannot be generalized to other areas.
- This study is restricted only to regular passengers or daily travellers.
- Sample size is restricted to 50 respondents only due to the time constraint.
- The distance and travel time from Kottayam to Kochi was a main limitation.

Chapterisation

CHAPTER 1 – Introduction

CHAPTER 2 – Review of Literature

CHAPTER 3 – Theoretical framework

CHAPTER 4 – Data analysis and interpretation

CHAPTER 5 – Findings, Conclusions and Suggestions.

REVIEW OF LITERATURE

1. Abdul Rahman (2011): In his study about the popularity of NOL card used in Dubai metro, he found that this card is not accepted by most of the cabs or hotels in the emirate of Dubai. It was found that the promotional measures implemented by Octopus cards limited was also not effective.

2. Khalish Amar (2014): He studied about the effectiveness of MY RAPID card used in Malaysian metro. It was found that most of the passengers are using this card and this card has several benefits.

3 .Manish Kumar (2015): In his study about the response of passengers towards DMRC ICICI unifare card, he observed that this card is used commonly by the passengers and the services offered by ICICI bank is satisfactory.

4. Abin Jacob (2017): She studied about the relevance of Kochi 1 Smart card used in Kochi metro. As per her findings, it is evident that this card doesnot meet the expectations of the public and the response rate from the passengers towards the card is nominal.

5. Ashitosh Mukherjee (2005): He studied about the passengers behaviour on KMRC card issued by Kolkata Metro Rail Corporation. It was found that the discount rate on tickets are low and this is a main factor that restrain the passengers from using this card.

6. Said Ahmed (2012): He studied about the usage of MY RAPID card in the shopping outlets across Malaysia. he came to the conclusion that this card is widely used for shopping purpose.

7. Abhijith Sharma (2010) : In his study about the popularity of DMRC ICICI Unifare card among the government employees, he observed that government employees constitute the major portion of total cardholders and passengers.

8. Siraj Nasar (2016): He conducted a study to identify the number of NOL cardholders who are non-Dubai residents or who stay outside the emirate of Dubai. He came to a conclusion that only 7% of the cardholders stay outside Dubai.

ANALYSIS AND INTERPRETATION

Table 4.1

Gender wise classification of respondents

Gender	No. of respondents	Percentage (%)
Male	28	56
Female	22	44
Others	0	0
Total	50	100

Source: Primary data

Interpretation:

As per the Table 4.1,It is found that 56% of the respondents are male and 44% of the respondents are female.No one from transgender community is using Kochi 1 smart card.

Gender wise classification

■ Male ■ Female ■ Others
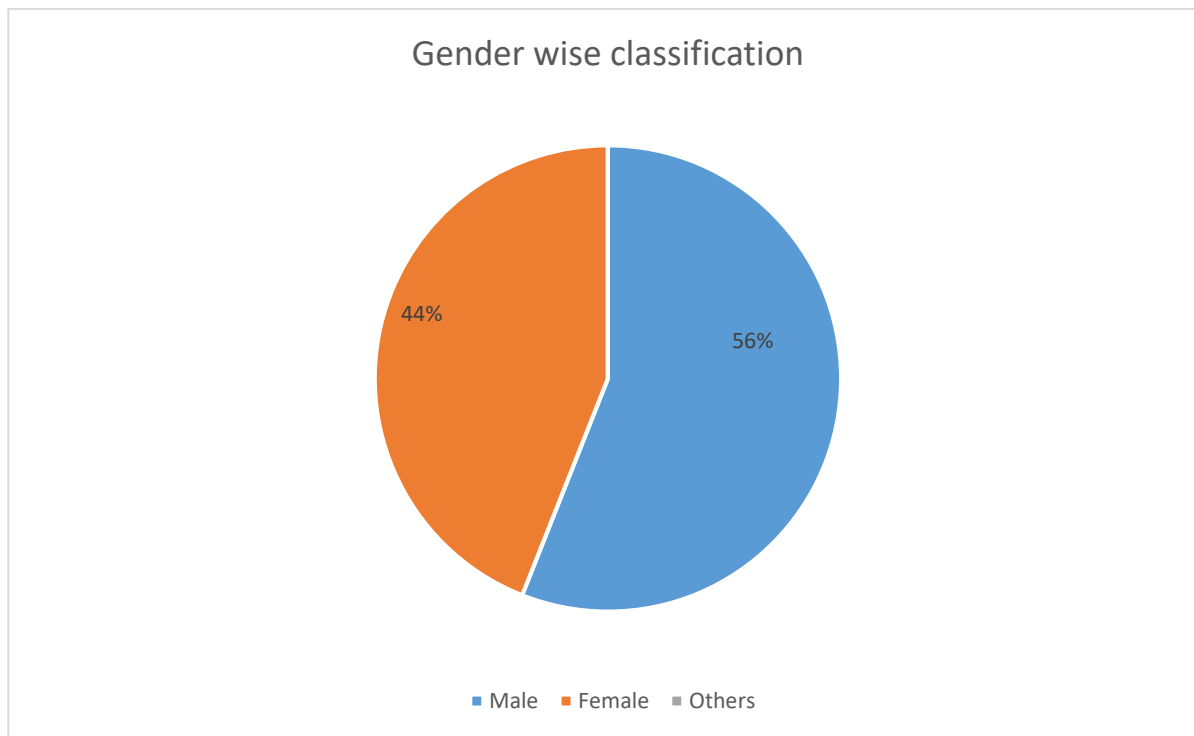
Source: Table 4.**Table 4.2**

Locality

Locality	No. of respondents	Percentage (%)
Rural	0	0
Urban	36	72
Semi-urban	14	28
Total	**50**	**100**

Source: Primary data

Interpretation:

From the table 4.2,it is observed that 72 % of the respondents are from urban sector and 28% are from semi-urban sector. It is found that no one from rural sector is using this card.**Figure 4.2**
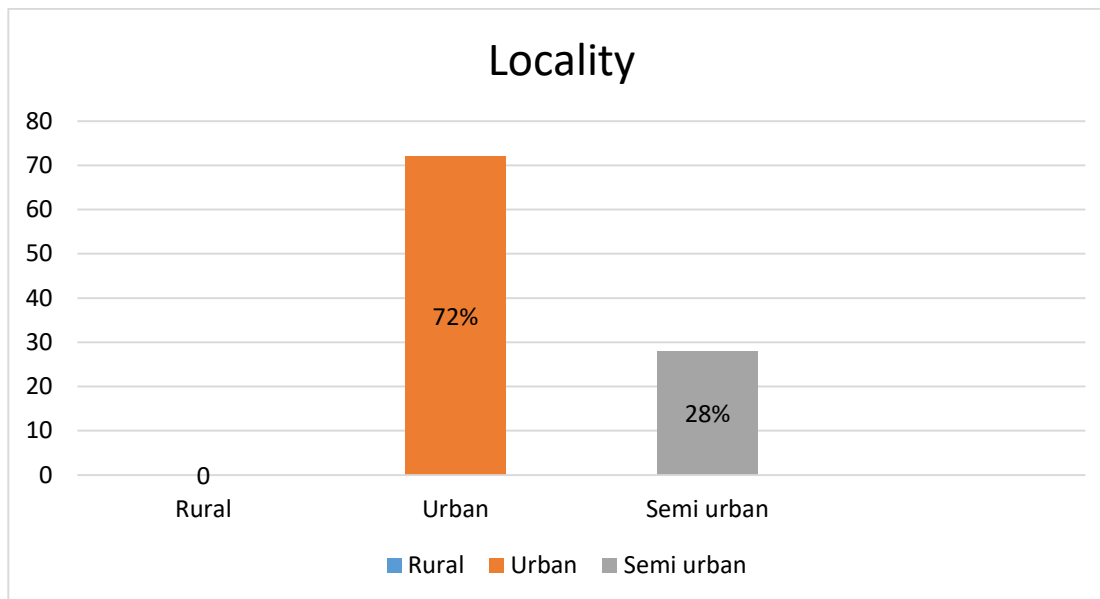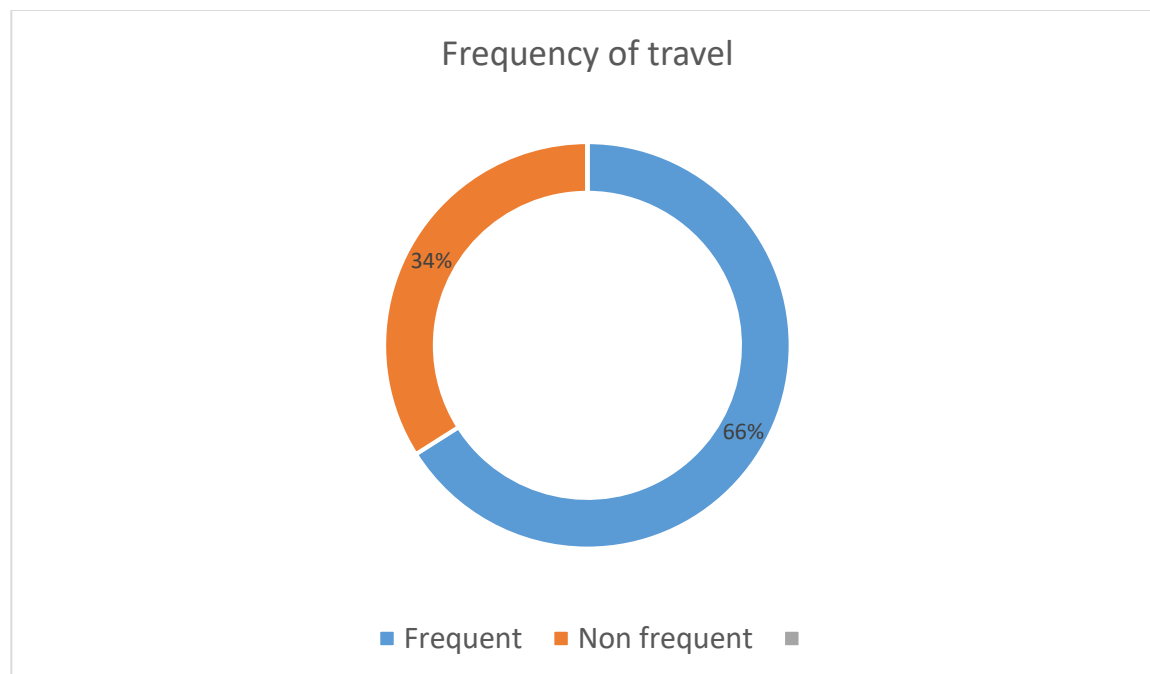
Source: Table 4.2

Table 4.3

Frequency of travel

Nature	No. of respondents	Percentage(%)
Frequent	33	66
Non frequent	17	34
Total	**50**	**100**

Source: Primary data

Interpretation:

66% of the respondents are regular/frequent travellers in Kochi metro.Out of the 50 respondents, 34 % of the respondents are non- frequent passengers.

Figure 4.3

Frequency of travel

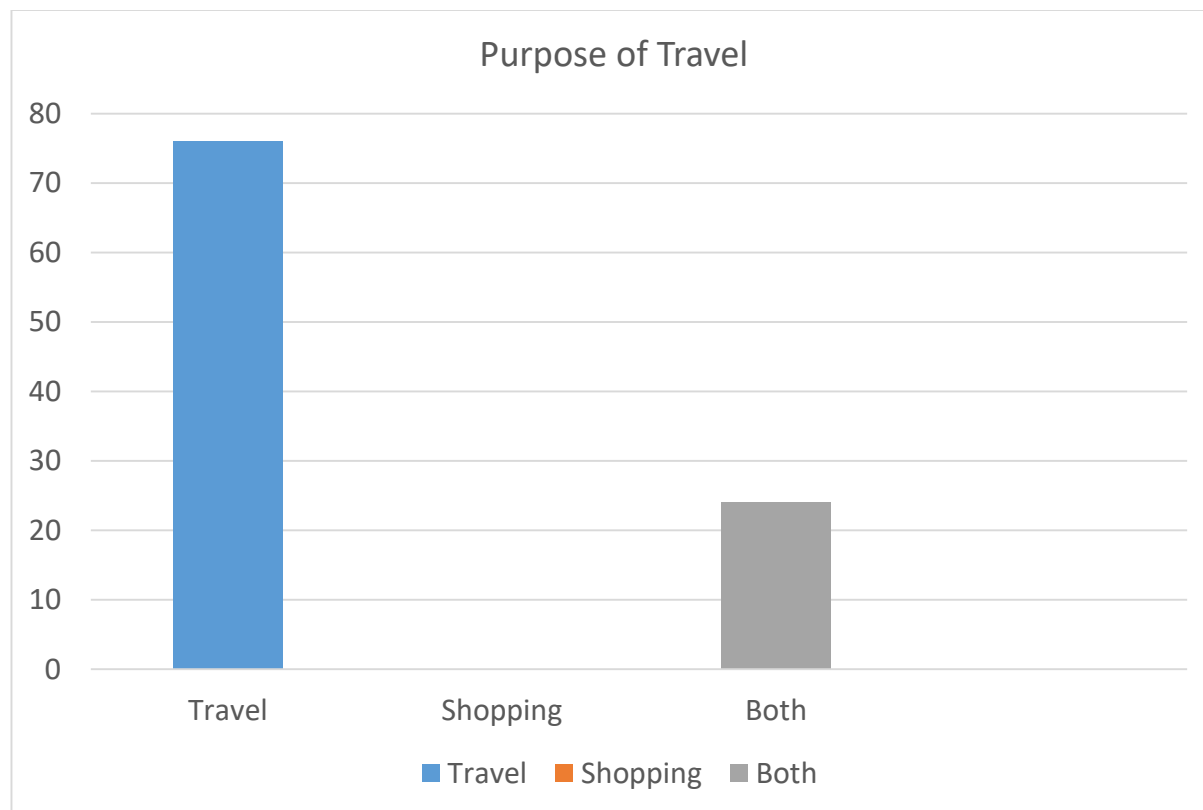Source: Table 4.3

Table 4.4

Purpose of travel

Purpose	No. of respondents	Percentage
Travel	38	76
shopping	0	0
Both	12	24
Total	**50**	**100**

Source: primary data

Interpretation: As per Table 4.4,It is recognised that 76% of the card holders use Kochi 1 smart card for travelling purpose. None of them use this card only for shopping.24% of the respondents use this card for both travel & shopping purpose.
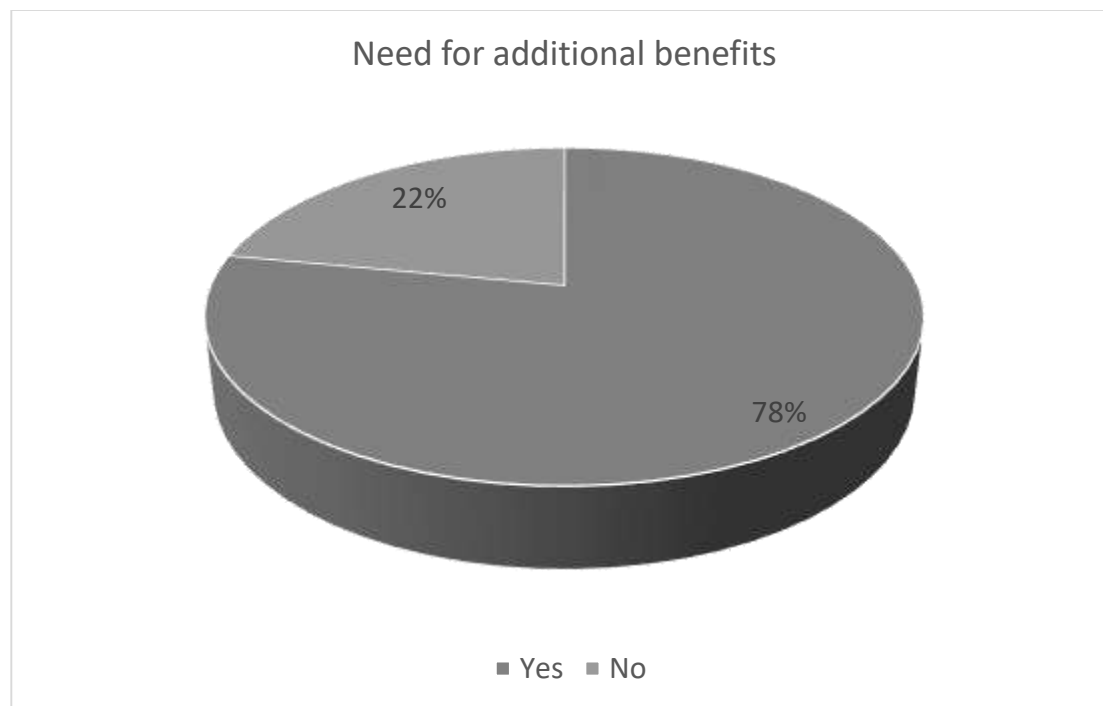
Figure 4.4

Source:Table 4.4

Table 4.5

Need for additional benefits

Response	No. of respondents	Percentage(%)
Yes	39	78
No	11	22
Total	**50**	**100**

Source: Primary data

Interpretation:From the table given above,It is found that 78% of the respondents believe that there is a need for additional benefits associated with this card.22% believe that the benefits offered now is optimum or suitable.

Figure 4.5

Need for additional benefits

22%

78%

■ Yes ■ No

Source: Table 4.5

Table 4.6

Popularity

Response	No. of respondents	Percentage (%)
Yes	18	36
No	32	64
Total	**50**	**100**

Source: primary data

Interpretation:

From the table given above,It is evident that 36% of the respondents believe that Kochi1 Smart card is popular among the passengers.64% of them believe that this card is not popular among the metro passengers**.**

Figure 4.6
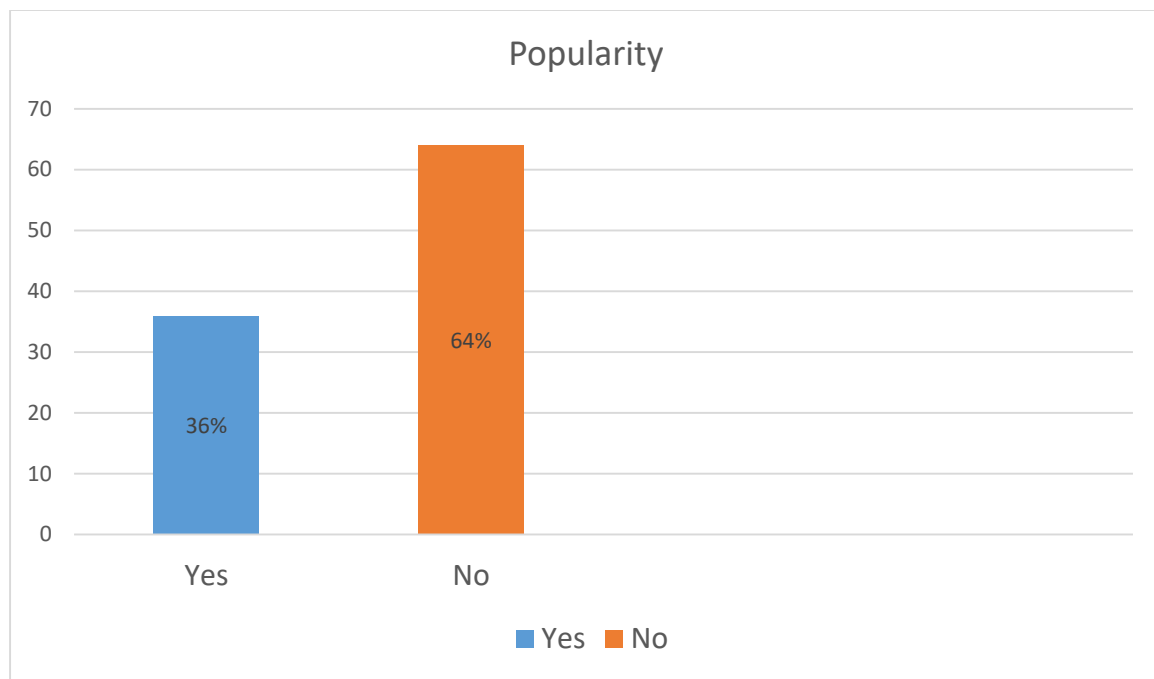
Source: Table 4.6

Table 4.7

Procedural delay

Response	No. of respondents	Percentage (%)
Yes	30	60
No	20	40
Total	**50**	**100**

Source: Primary data

Interpretation: From Table 4.7,it is evident that 60% of the respondents are facing procedural delays for obtaining this card from metro stations.According to 40% of the respondents,there is no procedural delay regarding procurement of card.

Figure 4.7
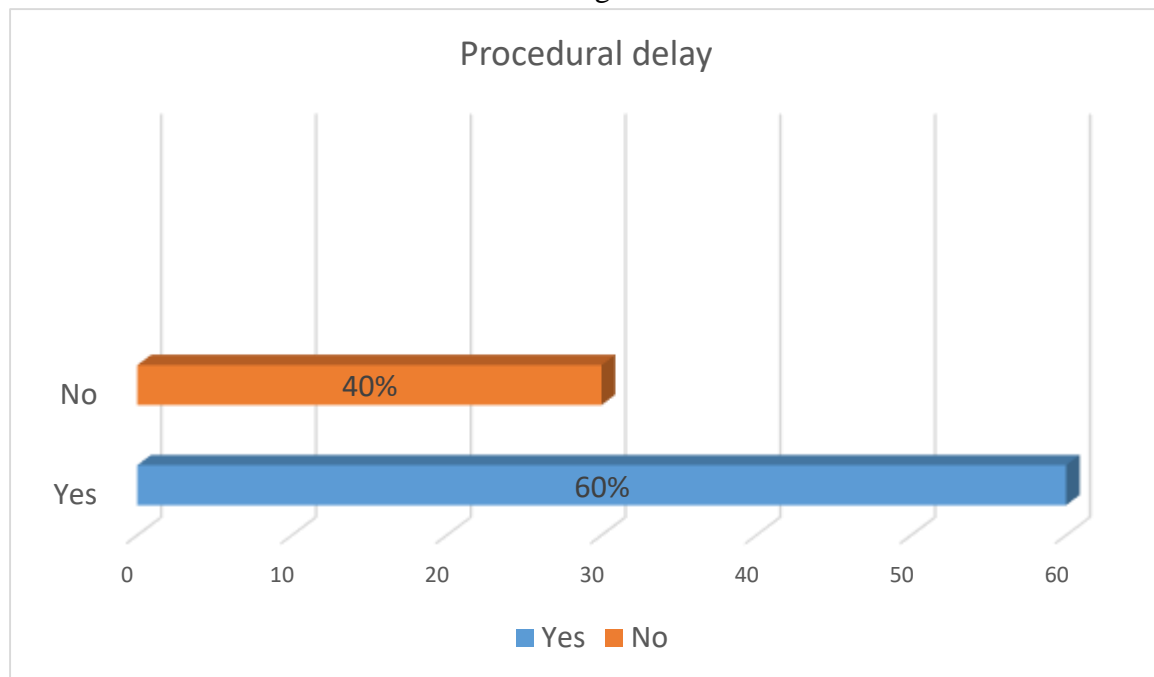
Source: Table 4.7

Table 4.8

Rating of Kochi one Smart Card on the basis of its benefits

Grade	No. of respondents	Percentage (%)
Excellent	3	6
Very Good	26	52
Good	19	38
Satisfactory	2	4
Total	**50**	**100**

Source: Primary data

Interpretation: From the table 4.8, it is observed that 52% of the respondentsrate Kochi one smart card very good and 38% of them rate this card as good. According to 6% of the respondents this card excellent and 4% rate as satisfactory.

Figure 4.8

Rating of Kochi one smart card on the basis its benefits

- Excellent   - Very Good   - Good   - Satisfactory
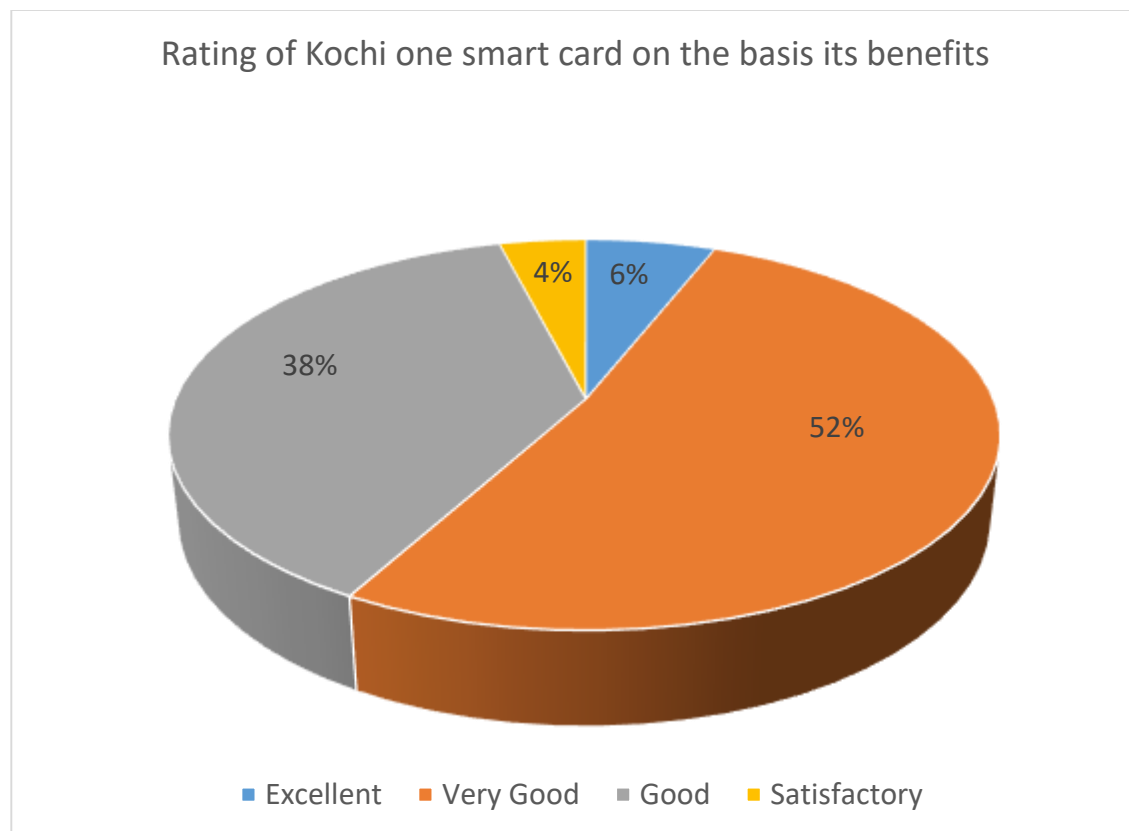
Source: Table 4.8

Table 4.9

Effectiveness in present situation

Response	No. of respondents	Percentage (%)
Yes	17	34
No	33	66
Total	**50**	**100**

Source: Primary data

Interpretation: Out of the 50 respondents,66% believe that Kochi one smart card is not effective in the present situation. Only 34 % of them believe that this card is effective**.**

Figure 4.9
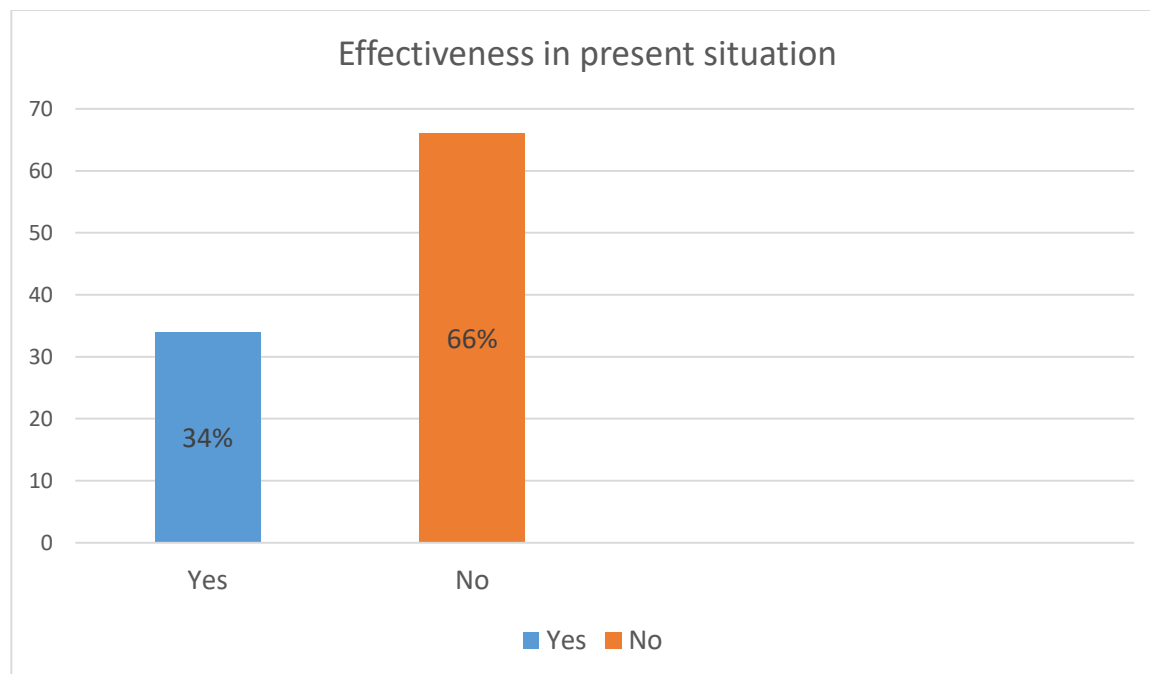
Source: Table 4.9

Table 4.10

Satisfaction with services offered by Axis Bank

Response	No. of respondents	Percentage (%)
Satisfied	23	46
Not Satisfied	27	54
Total	**50**	**100**

Source: Primary data

Interpretation:54% of the respondents have the opinion that the services offered by Axis bank is not satisfactory. 46% of the respondents believe that this card is satisfactory.

Figure 4.10

Satisfaction with services offered by Axis Bank

46%

54%

■ Satisfied　■ Not Satisfied
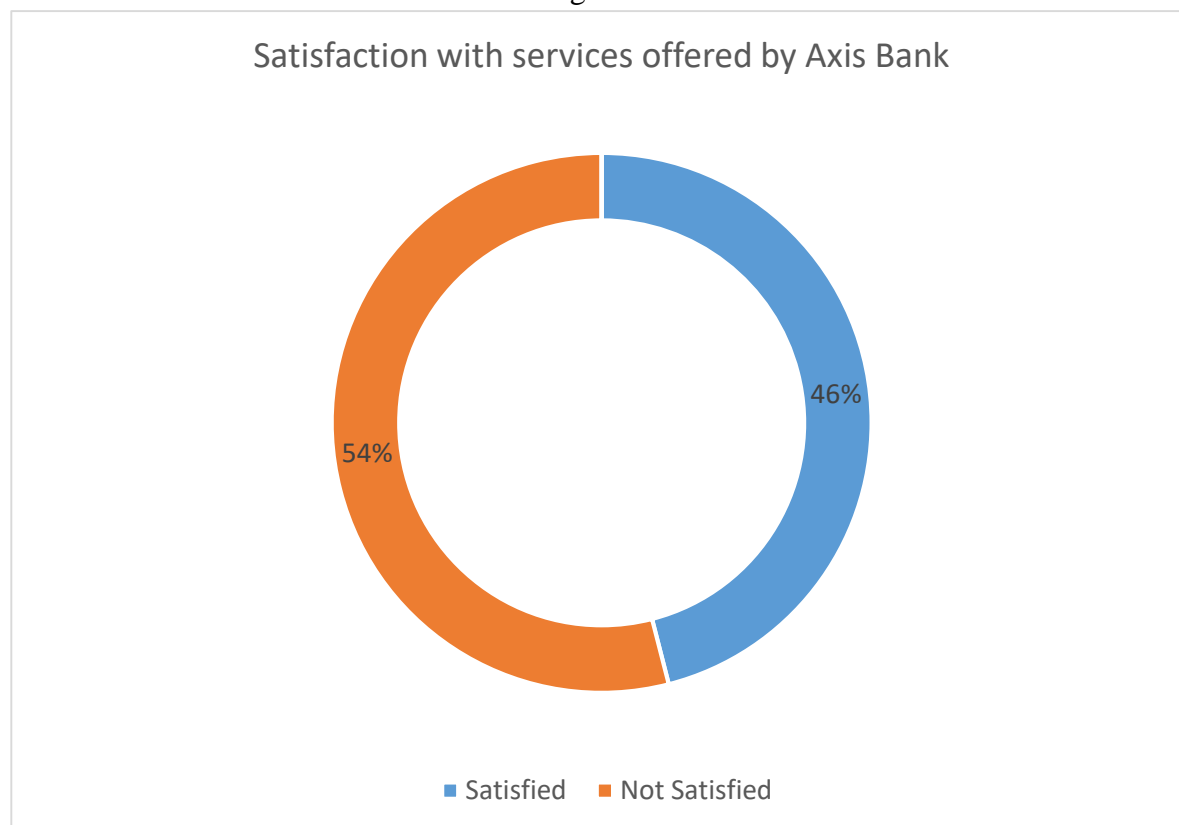
Source: Table 4.10

Table 4.11

Reasons for preferring Kochi one Smart Card

Reason	No. of respondents	Percentage (%)
Convenience	21	42
Save time	17	34
Economic	5	10
All of these	7	14
Total	**50**	**100**

Source: Primary data

Interpretation:As per the table 4.10, 42% of the respondents use Kochi one smart card due to its convenience.34% use this card as it saves valuable time.14% choose this card due to the collective benefit.10% of the respondents found that this card is an economic mode of ticketing.

Figure 4.11

Reasons for preferring Kochi one Smart Card
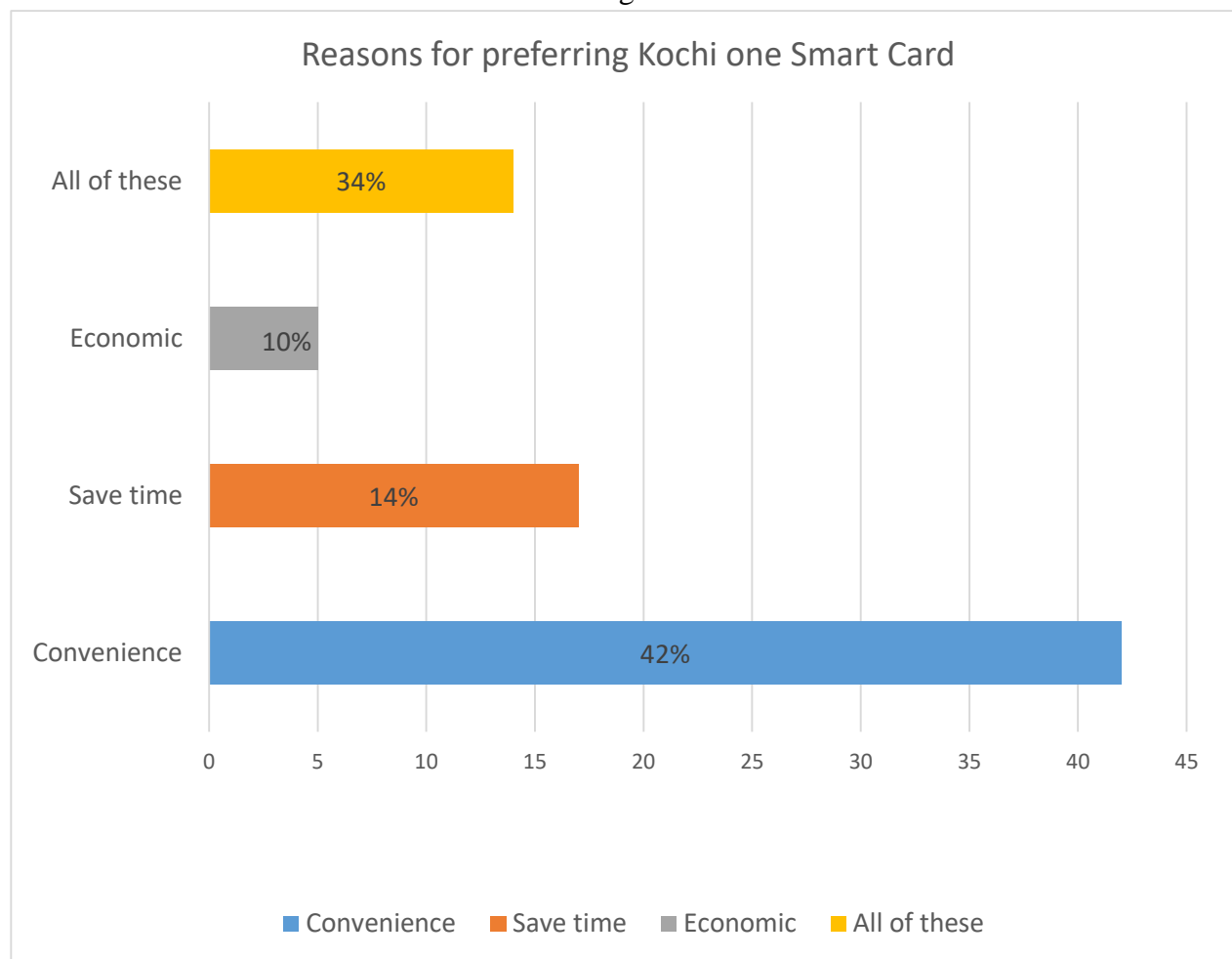
Source: Table 4.11

Table 4.12

Behaviour of KMRL staff

Response	No. of respondents	Percentage (%)
Satisfied	41	82
Not satisfied	9	18
Total	**50**	**100**

Source: Primary data

Interpretation: From the table 4.12, it is evident that 82% of the respondents are satisfied with the behaviour of KMRL staff towards them. Only 18% are dissatisfied with the behaviour of KMRL staff.

Figure 4.12
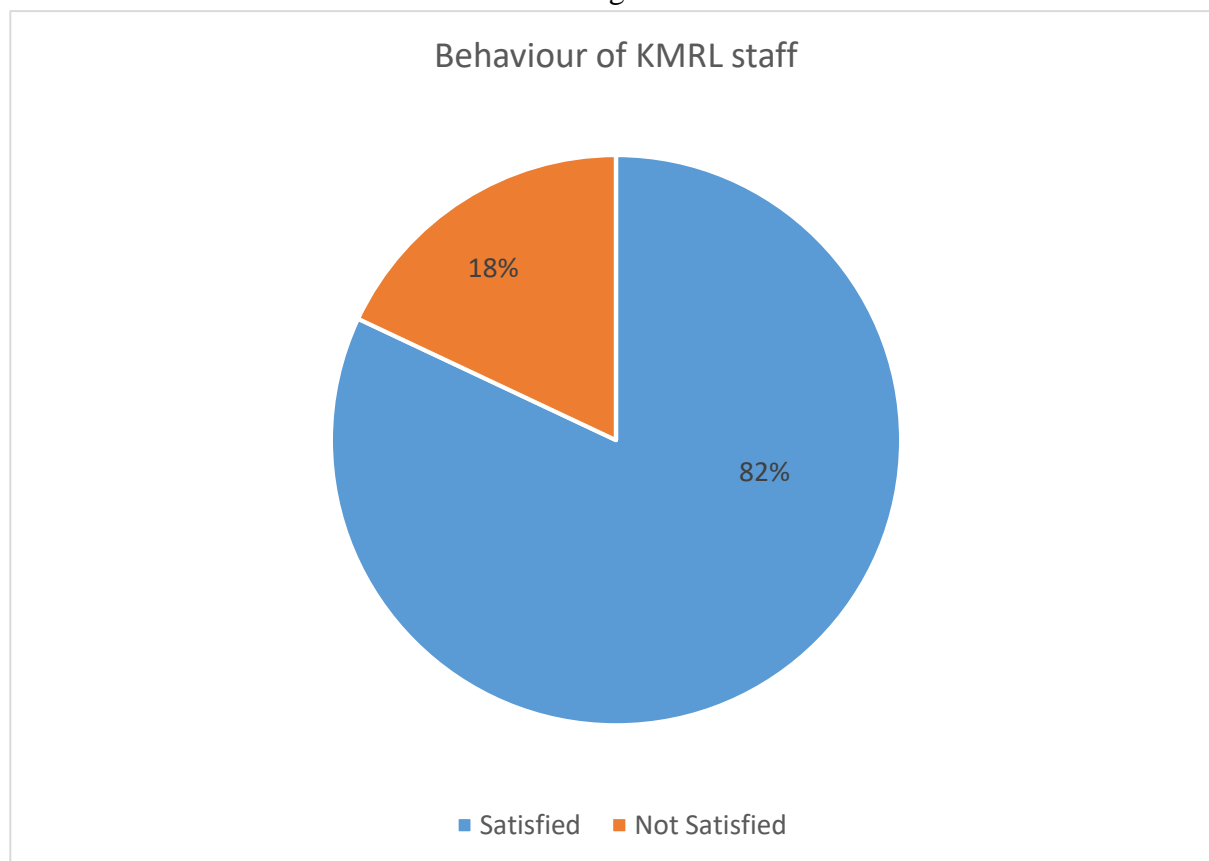
Source: Table 4.12

Table 4.13

Need to link the card with other modes of Transportation

Response	No. of respondents	Percentage (%)
Yes	33	66
No	17	34
Total	**50**	**100**

Source: Primary data

Interpretation:66% of the respondents find it necessary to link Kochi one smart card with other modes of transportation on the city. While 34% of the respondents believe that there is no need to link the card.

Figure 4.13

Need to the card with other modes of transportation
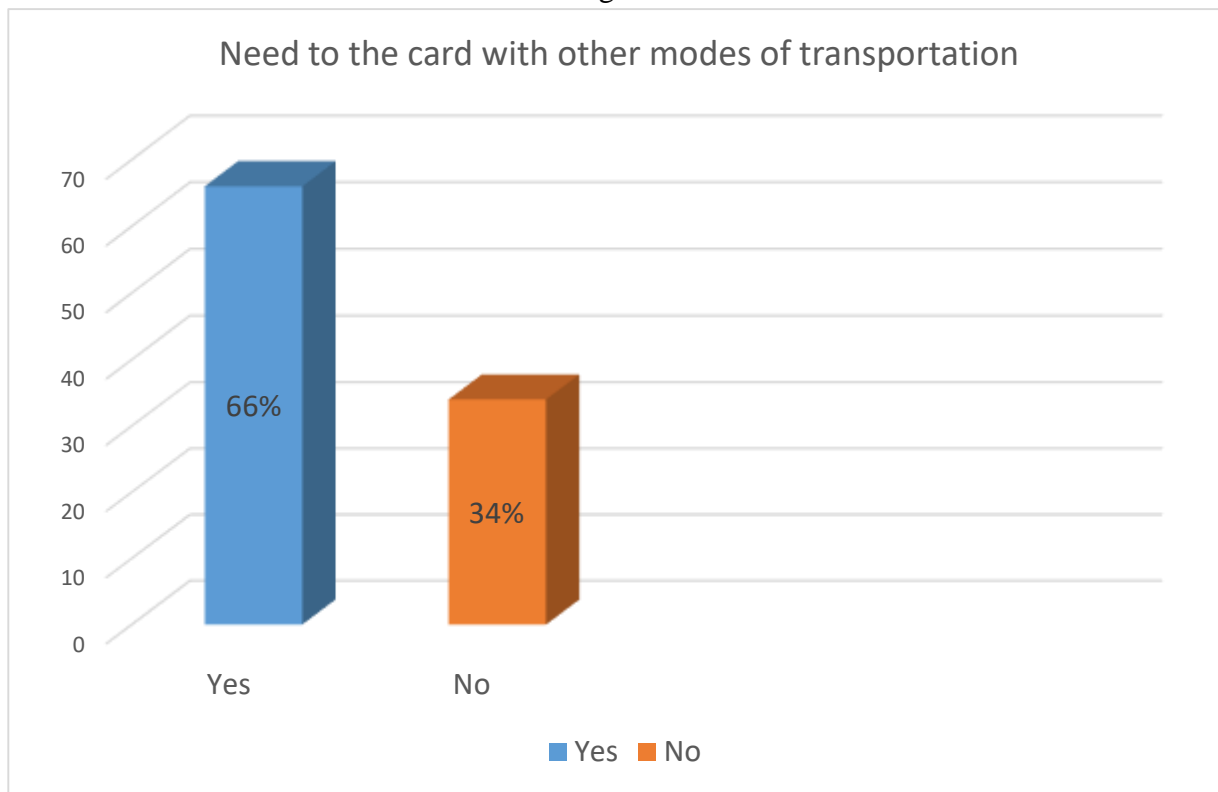
Source:Table 4.13

Table 4.14

Section of people using the card

Section of people	No. of respondents	Percentage (%)
Students	8	16
Workers	35	70
Senior Citizen	7	14
Total	**50**	**100**

Source: Primary data

Interpretation: From the table given above it is observed that 70% of the card users are workers and 16% of the card users are students. Only 14% of the card users belong to the senior citizen category.

Figure 4.14

Section of people using the card

- Students   - Workers   - Senior citizen
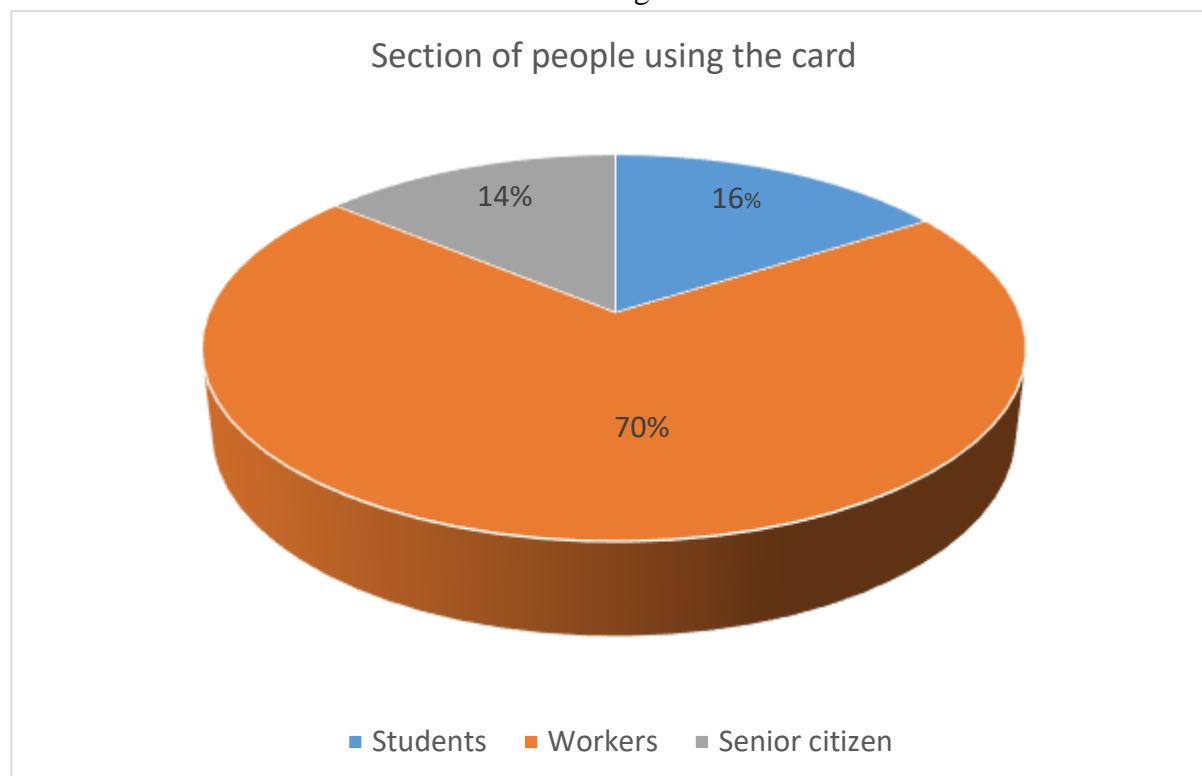
Source:Table 4.14

Table 4.15

Impact on growth of business

Response	No .of respondents	Percentage (%)
Yes	26	52
No	24	48
Total	**50**	**100**

Source: Primary data

Interpretation:52% of the respondents have an opinion that Kochi one smart card helps in the growth of business in Kochi. Meanwhile 48% believe that this card does not contribute to the growth of business.
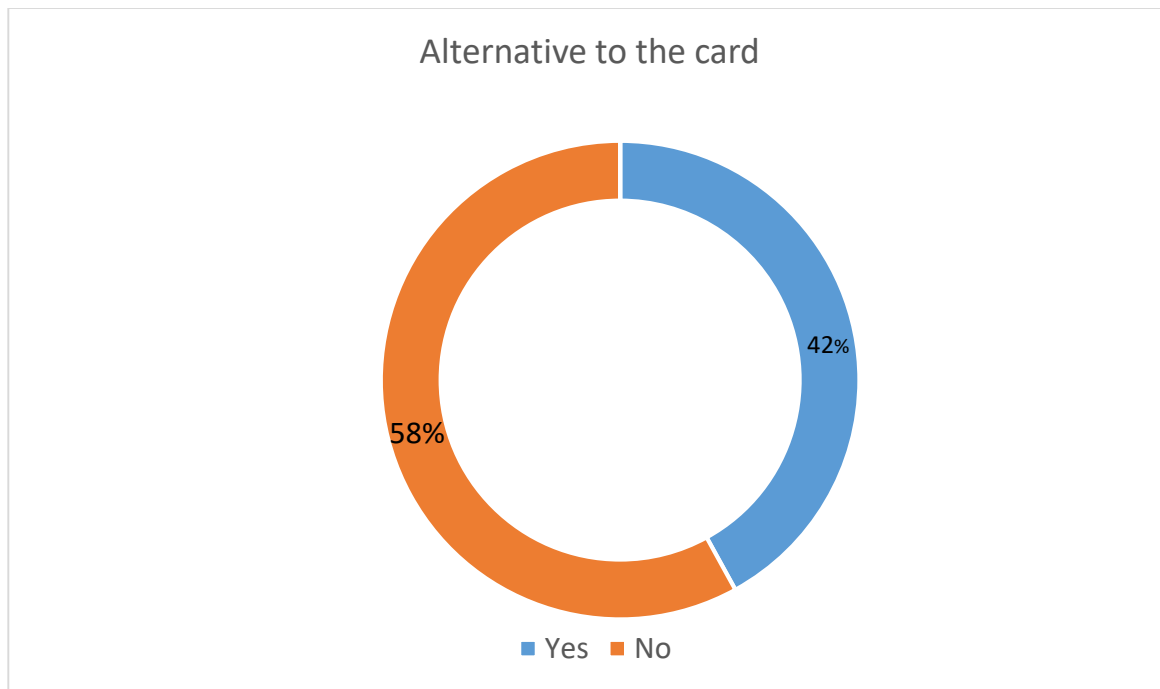
Figure 4.15
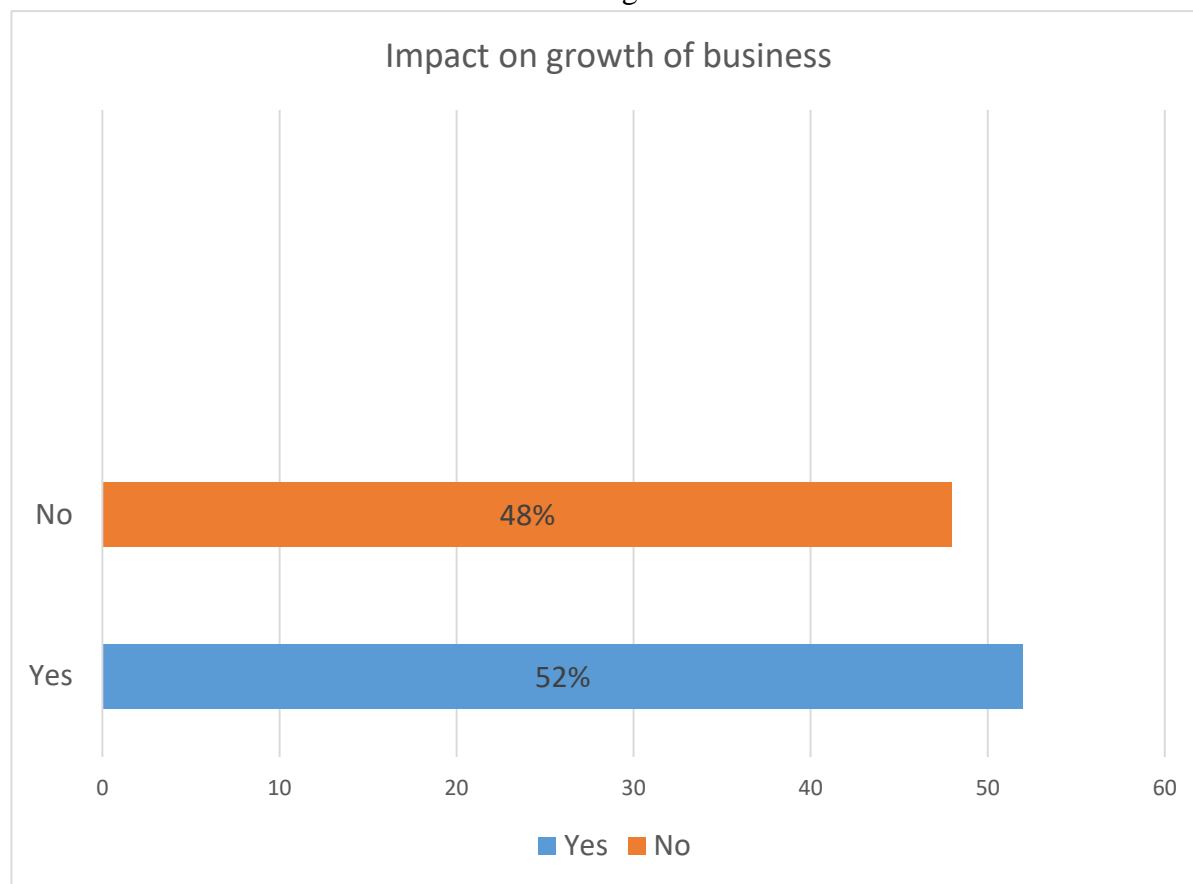
Source: Table 4.15

Table 4.16

Alternative to the card

Response	No. of respondents	Percentage (%)
Yes	21	42
No	29	58
Total	**50**	**100**

Source: Primary data

Interpretation:58% of the respondents believe that there is no better alternative to Kochi one smart card. Meanwhile 42% of them opinioned that several better alternatives are available.

Figure 4.16

Source: Table 4.16

Table 4.17

Recommendation of the card

Response	No. of respondents	Percentage (%)
Yes	37	74
No	13	26
Total	**50**	**100**

Source: Primary data

Interpretation:As per the table given above it is evident that 74% of the respondents will recommend this card to others. While 26% of the respondents are not interested in recommending this card to others.

Figure 4.17

Recommendation of the card
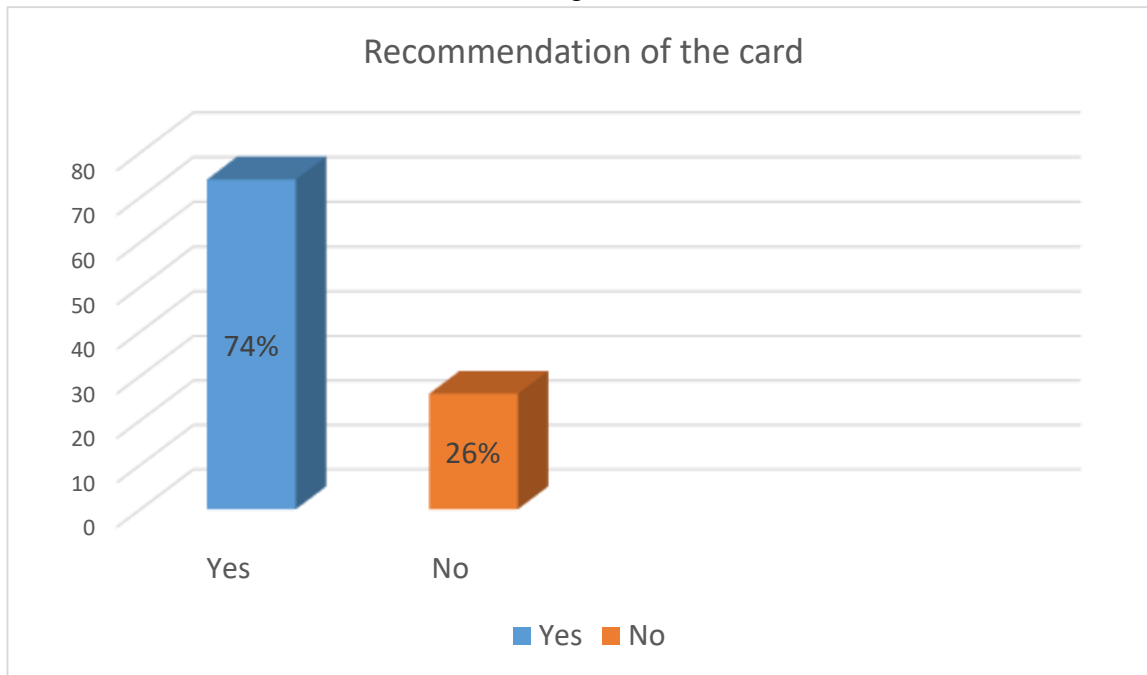
Source: Table 4.17

Table 4.18

Rating of the procedure for the issue of the card

Rating	No .of respondents	Percentage (%)
Easy	26	52
complicated	24	48
Highly complicated	0	0
Total	**50**	**100**

Source: Primary data

Interpretation:52% of the respondents rate the procedure for issue of this card as easy.48% of them has an opinion that the procedure is complicated. None of them believe that the procedure is highly complicated.

Figure 4.18

Rating of the procedure for the issue of the card

■ Easy   ■ Complicated   ■ Highly complicated
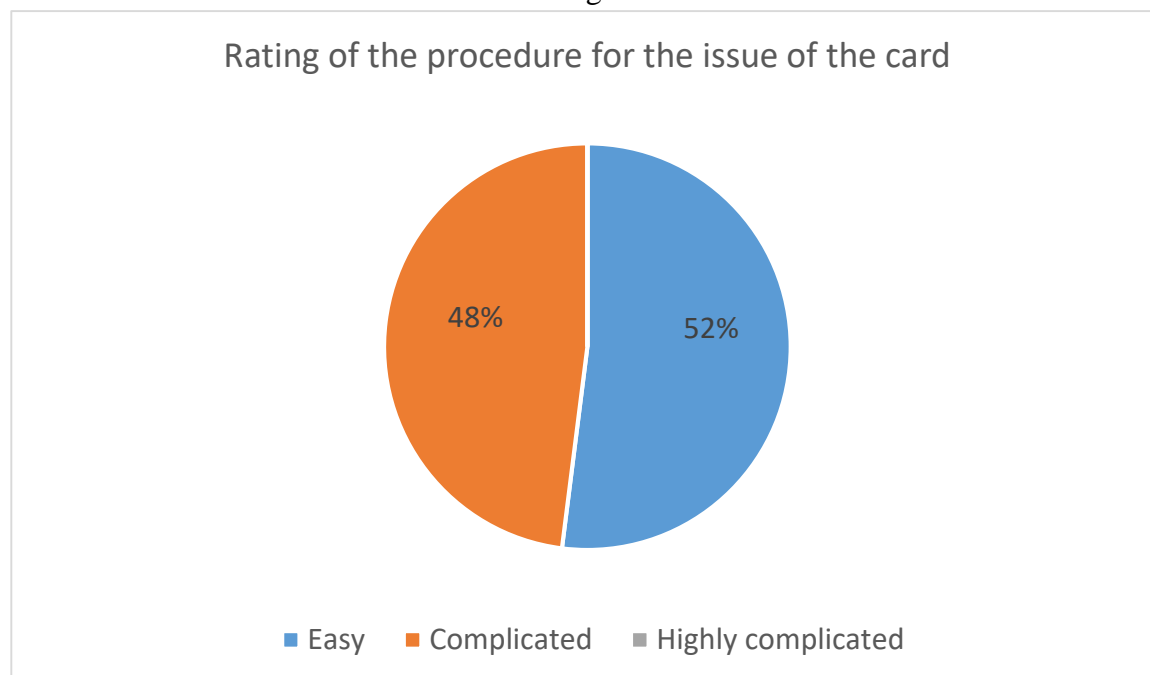
Source: Table 4.18

Table 4.19

Satisfaction of facilities offered by KMRL

Response	No. of respondents	Percentage (%)
Yes	31	62
No	19	38
Total	**50**	**100**

Source: Primary data

Interpretation:62% of the respondents are satisfied with facilities offered by KMRL connected with this card. 38% of them are not satisfied with the services offered by KMRL.

Figure 4.19

Satisfaction of facilities offered by KMRL
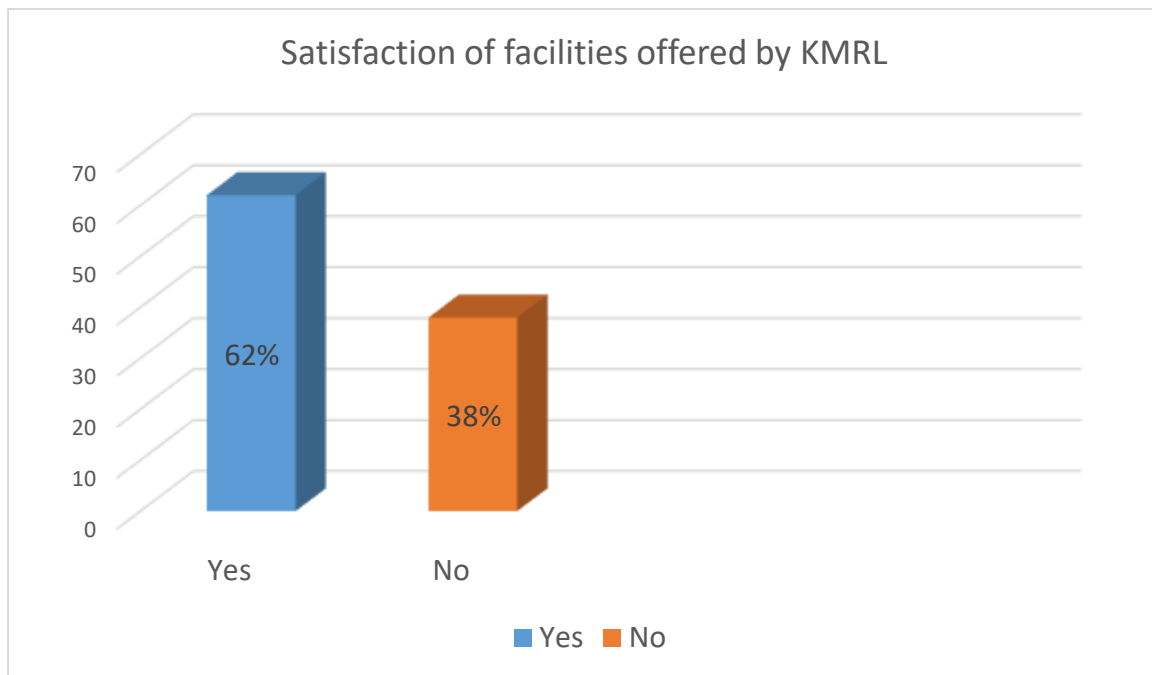
Source: Table 4.19

Table 4.20

Initiation of any promotional measures by KMRL

Response	No. of respondents	Percentage (%)
Yes	26	52
No	24	48
Total	**50**	**100**

Source: Primary data

Interpretation: From the above table, it is evident that 52% of the respondents are satisfied with the promotional measures taken by KMRL to popularise this card. But 48% of the respondents are not satisfied with the promotional measures taken by KMRL.

Figure 4.20

Initiation of any promotional measures by KMRL

48%   52%

■ Yes ■ No
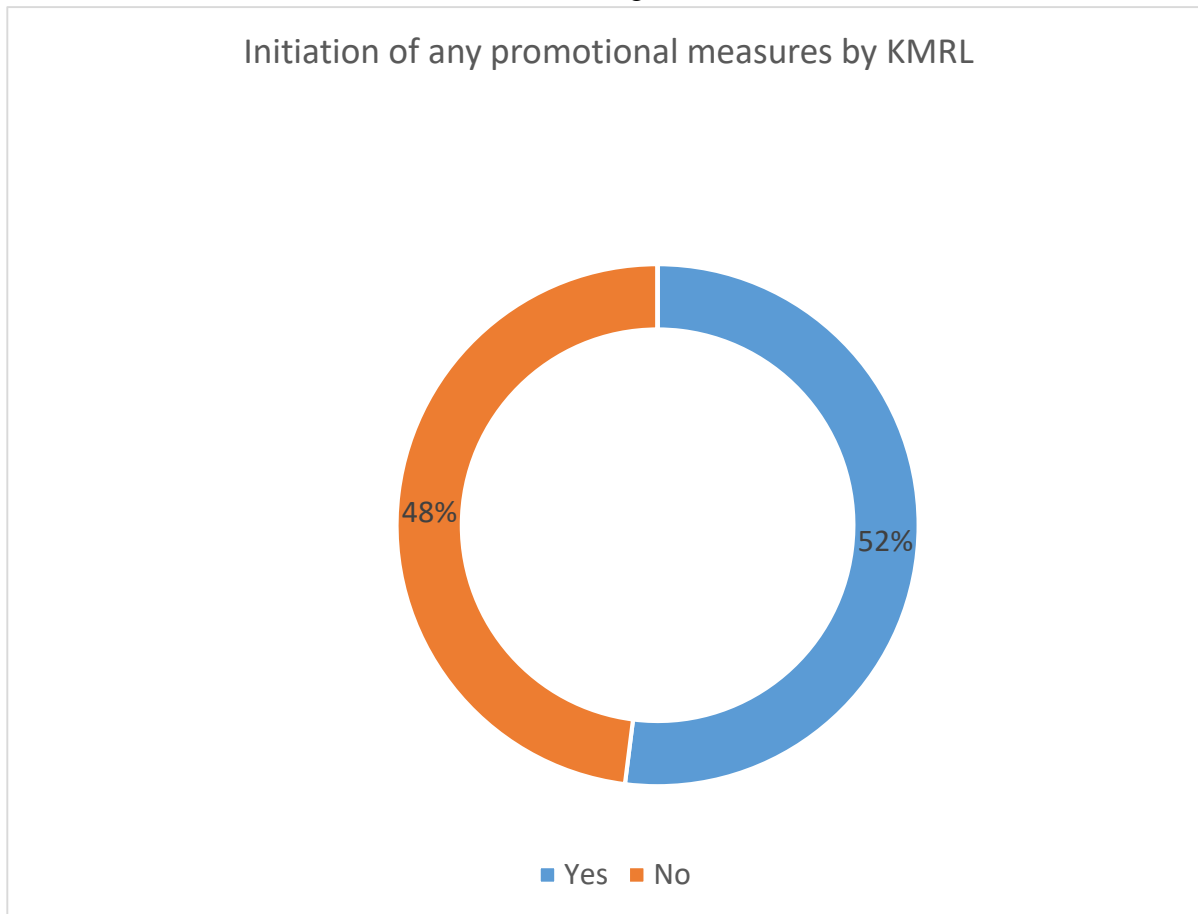
Source: Table 4.2

FINDINGS, SUGGESTIONS AND CONCLUSIONS

Findings

1. About 56% of the respondents are male.
2. Majority of the respondents are from urban sector.
3. It is found that 66% of the respondents are frequent passengers.
4. 76% of the respondents use Kochi 1 smart card for travel purpose.
5. Most of the respondents believe that there is need for additional benefits.
6. 64% of the respondents believe that this card is not popular among the passengers.
7. Around 60% of the respondents think that there is procedural delay in obtaining the card.
8. 52% of the respondents rate Kochi 1 smart card as 'Very Good'.
9. It is identified that 66% of the respondents believe that this card is not effective in the present situation.
10. 54% of the card users are not satisfied with the services offered by Axis Bank.
11. Around 42% of the respondents use this card due to its convenience.
12. 82% of the respondents are satisfied with the behaviour of KMRL staff towards them.
13. About 66% of the respondents believe that it is necessary to link this card with other modes of transportation.
14. Majority of the card users belong to working class.
15. 52% of the respondents believe that this card has a positive impact on the growth of business.
16. 58% of the respondents think that there is no better alternative to Kochi 1 card.

17. Majority of the respondents will recommend Kochi 1 card to others.
18. 52% of the respondents rate the procedure for the issue of this card as 'easy'.
19. About 62% of the respondents are satisfied with the facilities offered by KMRL.
20. 52% of the respondents think that there is a need to initiate promotional measures to popularise this card among the public.

Suggestions

1. To set up additional outlets or information desks to facilitate increased sale of this card.
2. To install kiosks at shopping malls,carnivals etc to popularise the card.
3. To initiate campaigns in colleges,offices etc to introduce the card among regular passengers.
4. KMRL should initiate promotional measures to increase card issue.
5. Axis bank must increase the services offered in association with this card.
6. The discount on ticket rates must be increased from 20% to 50%.
7. Necessary steps should be taken to avoid the procedural delays in the issue of the card.

Conclusions

A study on the popularity of Kochi 1 smart card was done to check whether this innovative card is effectively used by the public or not.The data obtained from Kochi Metro Rail Corporation (KMRL) office and Axis bank indicates that only 7268 cards are issued so far.This indicates that Kochi 1 smart card is not a successful initiative as of now.The detailed analysis and interpretation of the data collected from respondents indicate that most of the passengers are not aware about this card and its benefits.We found that low scale promotion by KMRL is a main factor that cause this drawback.So the popularity and effectiveness of this card can be increased or improved only through strong promotional campaign by Kochi Metro Rail Corporation and its related agencies.

BIBLIOGRAPHY

Books,Magazines,Articles

- Digest(Metro Rail),Malayala Manorama Publications.
- KMRL Axis bank Kochi 1 card usage manual.
- 'Kochi 1 smart card,app to be rolled out along with metro',**THE HINDU** June14,2017.
- 'Kochi 1 smart card to be launched on June 17' .**Deccan Chronicle ,**June 11,2017.
- 'What is Kochi 1 card',**The Indian Express** June 23,2017.

Websites

- www.kmrl.com
- www.axisbank.com
- www.delhimetrorail.com
- www.facebook.com/Elias George IAS
- www.thehindu.com
- www.manoramaonline.com