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# An Analysis of the Questionnaire Investigation for On-line Network Jewelry Purchasing 

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#### Abstract

Recently, the numbers of jewelry/accessories buying via the Internet are increasing, especially for young men. They often have difficulty deciding what kinds of jewelry/accessories, because there are many kinds of jewelry/ accessories to choose from. Consulting service to support decisions is required for these matters. In this paper, a questionnaire investigation is executed for the purchasing on-line network, used for jewelry/accessory purchasing in order to get instructions for an on-line network consulting service. These are analyzed by using the Key Graph method, the Multi Corresponding analysis method, and the Multivariate analysis such as the Factor analysis. Some interesting and instructive results are obtained. These are utilized for constructing a much more effective and useful on-line network consulting service.


[^0]Key word: jewelry, questionnaire investigation, Key Graph, Multi Corresponding analysis, Multivariate analysis

## 1. INTRODUCTION

Owing to the prevailing Internet, new businesses such as jewelry selling via Internet with on-line consultation, what kind of jewelry/accessory for gift purchasers would be better to choose, is becoming a big trend. Purchasers via Internet have various purchasing patterns and they may have significant relationship with their characteristics and the circumstances they are in. Therefore, if we can make clear the relationship between these, we would be able to make a much more effective marketing plan and execute efficient sales promotion for each of them.

For these purposes, we created a questionnaire investigation of jewelry/accessory purchasing. Reviewing past researches, there are some related researches as follows. D. A. Arcar (1938) took the approach by an analysis method of consumer's purchasing and the brand image to the horizontal axis by using MDS (Marketing Dynamic System) in the beer market in Chicago. Ueda (2003) analyzed that consumer's valuing attribute and attribute level are different according to the situation by using such methods as the Radaring method, text mining, and making the value map. Yoshizawa (2003) analyzed consumers purchasing by using a large-scale sample and the factor analysis, and tried the brand recollection investigation, which extended the market share, etc. There have been a few investigations on this, as jewelry/accessory selling via Internet with consultation is a relatively new business.

We utilize the Key Graph method for the analysis, which is also a relative new method (Osawa, 2003) and we can hardly find researches in these fields using this method.

In this paper, a questionnaire investigation is executed for the purchasing on-line network used for jewelry/accessory purchasing in order to get instructions for an on-line network consulting service. These are analyzed by using the Key Graph method, the Multi Corresponding analysis method, and the Multivariate analysis such as the Factor analysis.

As mentioned above, the analysis was executed by using the Key Graph method, that enabled us to visualize the relationship between the chances and the events and the surroundings, as the tool of the decision making support by data mining about the questionnaire survey that were originally executed it in recent years.

Some interesting and instructive results are obtained. These are utilized for constructing a much more effective and useful on-line network consulting service.

The rest of the paper is organized as follows. Outline of questionnaire research is stated in section 2 . In section 3, an analysis is executed which is followed by the remarks in section 4 . Section 5 is a summary.

## 2. OUTLINE OF QUESTIONNAIRE RESEARCH

Outline of questionnaire research is as follows.

Scope of investigation: Young Person, Japan
Period: December 2007~January2008
Method: Mail and self writing
Collection : Number of distribution 1,000, Number of collection 377 (collection rate 37.7\%)

Analysis methods are as follows.

Questionnaire results are analyzed in four methods. First, summary by single variable is explained in 3.1 in order to examine the pattern of responding about items. Second, analysis by Key Graph is executed in 3.2 in order to grasp the total structure of the items. Third, analysis by Multi Corresponding analysis is executed in 3.3 in order to visualize the relationship among the items. Fourth, analysis by Factor analysis is executed in 3.4 in order to clarify the viewpoints of important factors as showed in Table 2.1.

Table 2.1 The systematic approach on efficient analysis

| Step | Aim of analysis | Used Method |
| :---: | :--- | :--- |
| (1) | Examining the pattern of responding about Items | Single Variable Analysis: |
| (2) | Visualize the Total structure among questions systematically <br> $\Rightarrow$ Important factors are extracted | Key Graph Analysis:(Text mining) |
| (3) | Examine the relationship among questionnaire items about <br> important factors | Multi Correspondence analysis: <br> (Positioning) |
| (4) | Clarifying the viewpoints and axes for the important factors | Factor Analysis:(Extracting) |

## 3. ANALYSIS OF QUESTIONNAIRE RESULTS

### 3.1. Summary by single variable

Summary by single variable is as follows.
(1) Outline of examinees
(1) $\operatorname{Sex}(Q 45)$

- Male : 69\%
- Female : 31\%
(2) Age (Q46)
- Under 18:1\%
- 18~22: 18\%
- $23 \sim 27: 18 \%$
- $28 \sim 32: 15 \%$
- $33 \sim 37: 19 \%$
- $38 \sim 42: 12 \%$
- $43 \sim 47: 6 \%$
- More than 48 : 11\%
(3) Occupation (Q47)
- Student : 19\%
- Officer : $2 \%$
- Company Employee : 61\%
- Clerk of Organization : $1 \%$
- Independents : 8\%
- Miscellaneous : $9 \%$
(4) Address (Q48)
- Osaka: $56 \%$
- Hyogo: 7\%
- Kagawa: $6 \%$
- Wakayama:5\%
- Fukui: $5 \%$
- Nara: $4 \%$


## (2) Analysis by the summary of single variable

Q1 : When you make a gift of jewelry/accessory to someone, what point do you stress?
"Price" (23\%), "Trend/Design"(21\%) and "Desire of the receiver" (19\%) are dominant and have $63 \%$ altogether.


Fig.3.1 Stress Point when making a gift (Q1)

Q2~11: When you choose, how is the importance of each item?
Analyzing above 3 items in Q1, important points when making a gift are as follows.
(1) "Price"

Answerers of 84\% ("Vey important", "Slightly important") think it
important about price.
(2) "Trend/Design"

Those who selected "Very important" and "Slightly important" amount to 79\%.
(3) "Desire of the receiver"
$93 \%$ selected "Very important" and "Slightly important". This term is very highly esteemed.


Fig.3.2 Importance items when choosing a gift (Q2~11)

Q12: How much do you spend for one gift?
" $15,000 \sim 20,000$ yen" is the most and " $5,000 \sim 10,000$ yen" is the second. 5,000 to 20,000 yen would be an appropriate range for young people.


Fig.3.3 Spending Money for one gift (Q12)

Q13 : What kind of jewelry/accessory have you given?
First is "Necklace/Pendant" (33\%) and second is "Ring" (29\%), 2/3 share is occupied by these two items.

## Q13



Fig.3.4 Kind of jewelry/accessory for giving a gift (Q13)

Q14: Why did you select them?
"Desire of the receiver" has $50 \%$ share and then "Budget" (13\%), "Recommendation of the sales person" (9\%) and "Trend" (8\%) follows. This result is similar to those of the Q2-11.


Fig.3.5 Selecting Reason for giving a gift (Q14)

Q15: Who do you consult with when you choose?
"Lover" is the most and then "Nobody" follows.


Fig.3.6 Consulting Person when choosing a gift (Q15)

Q16 : Where do you buy gifts?
"Department Store" (48\%) and "Jewelry/Accessory Shop" (43\%) take the dominant position. "Internet Shop" (5\%) may have conquered the share of "Remote Sales by Catalogue" (1\%) because there was no Internet. Shop before.

## Q16



Fig.3.7 Buying Place for gift (Q16)

Q17: Why is it? (Where do you buy gifts?)
"Reliability of the shop" (32\%), "Plenty of items" (28\%), "There are favorite brands" (12\%), "Desire of the receiver" (10\%), "Specified Shop" (8\%) are the main reason. In the on-line shop, to be a reliable portal site which has plenty of items would be essential.


Fig.3.8 Reason of the choosing shop (Q17)

Q18 : Whom do you make a gift to?
"Lover" has the dominated share, which is followed by "Spouse".


Fig.3.9 Giving a person for gift (Q18)

Q19 : How many times do you make gifts in a year? "Once", "Twice", "Three times" are the main frequencies.

Q19


Fig.3.10 Number of times making gifts in ayear (Q19)

Q20 : On what occasions do you give presents?
"Birthday" (47\%) is extremely dominant, "X'mas" (26\%) follows, "White day" (7\%), "Wedding anniversary" (7\%) continues consecutively. Sales promotion for Birthday and X'mas is especially important. Sales promotion for Birthday needs customer database.

> An Analysis of the Questionnaire Investigation for On-line Network Jewelry Purchasing


Fig.3.11 Occasions for giving presents (Q20)

Q21~29: What is your hobby?
In "Sports", "Traveling", "Books" and "Music", "Very important" as well as "Slightly important" are select well.


Fig.3.12 Hobby (Q21~29)

Q30/31 : What kind of lifestyle do you like?
The shares of "Outdoor", "Indoor", "Not either" are nearly $1 / 3$ for each. In working style, "Desk work" (56\%) is dominant.


Fig.3.13 Lifestyle (Q30/31)

Q32-36 : Which method of payment do you want to choose?
"Very important" is often selected in "Cash", "Discount" and "Credit card".


Fig.3.14 Payment method (Q32~36)

Q37,38 How often do you use the Internet? How do you use Internet? Internet is rather highly used (83\%) ("Very often" (60\%), "Sometimes" (23\%)). But the number of Internet shopping users become small ("Very often" (13\%), "Sometimes" (44\%)). Internet is prevailing but there still exists feeling of anxiety in using Internet shopping.


Fig.3.15 Internet use (Q37~38)

Q39 The reason of using Internet Shopping
$40 \%$ users of Internet shopping feel it convenient to use. It may be because they can make shopping at anytime without going out for shopping. $20 \%$ users select "Able to compare goods easily" and " $17 \%$ " users select "Plenty of goods". Therefore, we can assume that users compare price and function by watching sites if the goods to buy is already determined.


Fig.3.16 The reason of using internet Shopping (Q39)

Q40 The reason of not using Internet Shopping 45\% non-users select "Can not observe goods". 19\% non-users select "Anxious".

There are many items in jewelry/accessory. Removing method of anxiety is required such as settling an antenna shop.


Fig.3.17 The reason of not using Internet Shopping (Q40)

Q41 The method to use Internet
$94 \%$ users use PC. More than $80 \%$ of answerers are more than 22 years old. If there were more teenagers in the sample, mobile phone users were much more.


Fig.3.18 The method to use Internet (Q41)

Q42 Do you want to buy jewelry/Accessory via the Internet?
$42 \%$ answered "No" and " $39 \%$ " answered "Yes" or "Perhaps". This may be a so called "ambivalent" answers. We can have expectation in the future for the expansion of Internet purchasing.

> An Analysis of the Questionnaire Investigation for On-line Network Jewelry Purchasing


Fig.3.19 Want of buying via the Internet (Q42)

Q43 The reason why they want to buy via the Internet "Convenient" (41\%), "Able to compare goods easily" (18\%), "Plenty of goods" (16\%) and "Cheap" (14\%) constitute the main stream. These are nearly the same with the reason why they use Internet shopping.


Fig.3.20 The reason of buying via the Internet (Q43)

Q44 The reason why they do not want to buy via the Internet "Can not observe goods" (56\%), "Anxious" (24\%) are the main reasons. Purchasing frequency is rare ( once and twice in a year are the dominant frequencies). Therefore buying items of jewelry/Accessory are quite different from those of books or electronic devices. "Desire of the receiver" is the most in Q14 when selecting a gift. Searching Internet readily based on the desire of the receiver should be promoted.


Fig.3.21 The reason of do not want to buy via the Internet (Q44)

### 3.2. Analysis using Key Graph

Key Graph is a method to visualize the data structure using key words. Data occurrences at the same period of the time are exhibited by the link of Key Graph.

## (1) Stressing Points and Attribute Information

The Key Graph analysis is executed selecting the item of Question 1 "Stressing points when making a gift" and attribute information (Q45: Sex, Q46: Age, Q47: Occupation). The occurrence rate and co-occurrence rate are important measures. From Fig.3.22, we can see that "Price", "Trend/Design", "Materials/Quality" and "Desire of the receiver" are key items. "Price" has the high co-occurrence rate with "Brand", "Trend/Design", "Materials/Quality" and "Desire of the receiver".
Male and female have different co-occurrence characteristics. Male make many stress on "Brand", "Price", "Trend/Design", "Materials/Quality" and "Desire of the receiver". On the other hand, female make stress on "Price" and "Trend/Design". Therefore, consulting service by the web should aware of the sex and make suitable recommendation. (Fig.3.22)

$$
\begin{aligned}
& \text { An Analysis of the Questionnaire Investigation } \\
& \text { for On-line Network Jewelry Purchasing }
\end{aligned}
$$



Fig.3.22 Stressing Points and Attribute Information

## (2) Kind of gift, Reason and Occasion

The Key Graph analysis is executed concerning Q13 (Kind of gift), Q17 (Reason) and Q20 (Occasion). We can see the fact that many people buy "Necklace/Pendant" and "Ring" from the shop of "Plenty of items" and/or "Reliable" shop on the occasion of "Birthday" (Fig. 3.23)


Fig.3.23 Kind of gift, Reason and Occasion

## (3) Kind of gift and its Reason

Furthermore, we make an analysis concerning kind of gift and its reason. "Necklace/Pendant" is dominant as for "Kind of gift", which is followed by "Ring". "Desire of the receiver" is dominant as for the reason of selecting, which is followed by "Budget". These are the same results with those of summary by single variable. Co-occurrence rate with "Sold well", "Famous entertainers have" and "Special sales" is low.

We can see that they make gift on the viewpoint that the receiver wants rather than other people have. (Fig.3.24)

## MaMa[30-30-10-1]



Fig.3.24 Kind of gift and its Reason

## (4) Usage of Internet Shopping and its Reason

Next, we make Key Graph analysis concerning Q37 (Usage of Internet Shopping), Q39 (Reason) and Q45 (Sex). For male, co-occurrence rate with following items is high, such as "Convenient", "Easy to compare", "Plenty of goods", "Cheap" and "Able to consult with other people". On the other hand, for female, co-occurrence rate is high with such items as "Convenient", "Easy to compare", "Plenty of goods" and "Cheap". (Fig 3.25)


Fig.3.25 Usage of Internet Shopping and its Reason

## (5) The Reason why they want to buy or do not want to buy

We make Key Graph analysis concerning Q42 (Want to buy via internet) and Q44 (Do not want to buy via Internet). From Fig.3.26, we can see that "Can not observe", "Anxious" have the high co-occurrence rate with other items, which are followed by the items "Can not get goods immediately", "Can not identify which shop is good". (Fig 3.26)


Fig.3.26 The reason why they want want to buy or not want buy

### 3.3. Multivariate analysis

## (1) Multi Correspondence Analysis

We execute the multi correspondence analysis in Q2~11 in order to find the correlation of each items.
(1) Stress point when making a gift of jewelry/accessory to someone (Q2~11)

We can see the following result from Fig.3.27.
So far, we have analyzed the data utilizing Key graph method. Here, we make multi correspondence analysis. From Fig.3.27, we can extract three clusters. We can assume that the first cluster shows "the value of gift". The second one would means "Added value of gift". The third one would suggest "Service level of the shop".

## Discrimination Measure



Fig.3.27 Stressing point when making a gift
(2) Method for Payment (Q32-36)

Next, multi correspondence analysis is executed concerning the method for payment. We can extract two clusters from Fig.3.28.

The first one is "Credit Card", "Cash/Cash on delivery" and the second one is "Discount", "Point Card/Coupon".

The former one shows the convenience at purchasing and the latter one shows the price advantage directly.

### 3.4. The analysis by the Factor analysis

Factor analysis is executed so as to extract viewpoints or axes for the appraisal stated above.

As for the extraction method of the factor, "the principal axis factoring"

Dimension 2
Discrimination Measure


Fig.3.28 Method for Payment
is adopted, and as for the rolling-method, "the varimax rotation which is accompanied by the normalization of Kaiser as orthogonal rotation" is adopted.

Also, we confirmed the validity of the model in the KMO (Kaiser-MeyerOlkin) specimen validity measure.
(1) Stressing points when making a gift (Q2-11)

Table 3.1 Factor Matrix after rotation

|  | Factor |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 | 2 | 3 | 4 |
| Price | . 087 | - 719 | . 013 | . 037 |
| Brand | . 150 | . 066 | . 032 | - 406 |
| Trend/Design | -. 066 | . 086 | . 224 | . 129 |
| Raw Materials/Quality | . 228 | -. 063 | . 433 | . 033 |
| Kind/Items | . 088 | . 025 | . 562 | -. 128 |
| Response Of The Shop Members | 545x.585 | . 072 | . 112 | . 061 |
| Existence OfCertification | Wur $=745$ | . 093 | . 047 | . 091 |
| Relatively Cheap | . 400 | 12. 402 | . 059 | . 056 |
| Desire Of The Receiver Of Gift | . 244 | . 136 | . 129 | -. 239 |

From the Factor matrix after rotation, we can extract 4 meaningful axes. We can see that the 1st axis is "the factor about Reliability of shop". The 2nd axis is "the axis which shows price value". The 3rd axis is "the factor about "Materials/Quality" of the goods". The 4th axis is "the factor about added value such as brand".

KMO is 0.658 and we can confirm an appropriate common factor.

> Factor Plotting after rotation


Fig.3.29 Stressing points when making a gift (Q2-11)

## (2) Payment method (Q32-36)

From the Factor Matrix after rotation, we can extract 2 meaningful axes. We can see that the 1st axis is "the factor about "Discount/Point/Coupon"" and expresses price advantage directly.

The 2nd axis is "Cash/Cash on Delivery" and expresses convenience at purchasing. These results coincide with those of multi correspondence analysis. KMO is 0.571 and we can confirm an appropriate common factor.

$$
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& \text { An Analysis of the Questionnaire Investigation } \\
& \text { for On-line Network Jewelry Purchasing }
\end{aligned}
$$

Table 3.2 Factor Matrix after rotation

|  | Factor |  |
| :--- | :---: | ---: |
|  | 1 | 2 |
| Cash Cash/Cash On Delivery | .025 | .405 |
| Credit Card | .424 | -.163 |
| Discount | .693 | .462 |
| Point Card/Coupon | .764 | .384 |

Factor Plotting after rotation


Fig.3.30 Payment method (Q32-36)

## 4. REMARKS

### 4.1. Analysis Sequence

First of all, Key Graph analysis is executed so as to visualize the total structure among questions systematically. Second, important factors are extracted by this analysis. Next, multi correspondence analysis is executed in order to examine the relationship among questionnaire items concerning these important factors. Factor analysis is executed, then, so as to clarify
the viewpoints and axes for the appraisal stated above. By these approaches, we can execute efficient analysis.

Each analysis method has each characteristics. Taking suitable method, issues to be clarified for the research object are analyzed effectively. Combining these methods, overall analysis can be executed complimenting each method with one another.

### 4.2. General comments Based on the Analysis Results

Internet has been prevailed (Q37, 38: Often use 60\%, Sometimes use 23\%). But the use of Internet shopping is now on the way to prevail. Reviewing the result of Q39, 40, book, ticket, electronic products may be sold well in the Internet shopping. $40 \%$ users of the Internet shopping feel it convenient to use them (Q39). 20\% of them select the item "Able to compare goods easily", $17 \%$ of them select the item "Plenty of goods". Therefore usage frequency would increase for those who know convenience of the Internet shopping. $56 \%$ of the person who does not want to buy jewelry via the Internet selected the reason "Can not observe actual goods" (Q44). $24 \%$ of them do not use because they feel anxiety in using the Internet shopping. It may be because jewelry is thought to be a rather high price. Reliability of the shop is indispensable. They might feel anxiety in buying jewelry/accessory especially compared with books or electronic products. $94 \%$ uses of the Internet shopping use PC (Q41). If there were much more samples of teenager, purchasing share via mobile phone would be much larger.

## 5. CONCLUSION

Jewelry/accessory buying via the Internet are increasing, especially for young men. They often had difficulty deciding what kind of jewelry/accessory, because there were many kinds of jewelry/accessories to choose from. Consulting service to support decision was required for these matters. In this paper, a questionnaire investigation was executed for purchasing online network, used for jewelry/accessory purchasing in order to get instruction for an on-line network consulting service. These were analyzed by using the Key Graph method, the Multi Corresponding analysis method,
and the Multivariate analysis such as the Factor analysis. Some interesting and instructive results were obtained. These would be utilized for constructing a much more effective and useful on-line network consulting service. Examining such trials should be traced hereafter.

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## APPENDIX：Questionnaire Concerning the Purchasing of Jewelry／Acces－ sories for Gifts

Please answer the following questions．Please write down $\bigcirc$ to the answer－ ing items．Plural selection is allowed for Question $1,13,14,17,20,39,40$ ， 43，44．Select（1）$\sim(5)$ of the right column for the Question $2 \sim 11,21 \sim 29$ ， $32 \sim 36$ ．

1．When you make a gift of jewelry／accessory to someone，what point do you stress？（Plural Answers Allowed）

> Q1 (1)Price (2)Brand (3)Trend/Design (4)Raw Materials/Quality (5)KindIttems (6Response of the shop members (7) Existence of Certification (8)Relatively Cheap (9)Desire of the receiver of the gitt (10)Miscellaneous ( )

2．When you choose，how is the importance of each item？

| Importance | 啶 | $\begin{aligned} & \text { 誉 } \\ & \text { 最 } \end{aligned}$ |  | 宕 | 皆皆 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Q2 Price | （1） | （2） | （3） | （4） | （5） |
| Q3 Brand | （1） | （2） | （3） | （4） | （5） |
| Q4 TrendDesign | （1） | （2） | （3） | （4） | （5） |
| Q5 Raw Materials／Quality | （1） | （2） | （3） | （4） | （5） |
| Q6 Kind／tems | （1） | （2） | （3） | （4） | （5） |
| Q7 Response of the shop members | （1） | （2） | （3） | （4） | （5） |
| Q8 Existence of Cerrification | （1） | （2） | （3） | （4） | （5） |
| Q9 Relatively Cheap | （1） | （2） | （3） | （4） | （5） |
| Q10 Desire of the receiver of gift | （1） | （2） | （3） | （4） | （5） |
| Q11 Miscellaneous（ ） | （1） | （2） | （3） | （4） | （5） |

3．How much do you spend for one gift？［Unit：yen］

$$
\text { Q12 (1) } \sim 5,000 \text { (2) } \sim 10,000 \text { (3) } \sim 15,000 \text { (4) } \sim 20,000 \text { (5) } \sim 25,000 \text { (6) } \sim 30,000 \text { (7) more than that }
$$

4．What kind of jewelry／accessory have you given？（Plural Answers Allowed）
Q13 (1)Ring (2)Necklace/ Pendant (3)Pierced earrings (4)Bracelet/Bungle (5)Brooch (6)Necktie Pin (7)Miscellaneous ( )

5．Why did you select them？（Plural Answers Allowed）

> Q14 (1)Desire of the receiver (2)Trend (3)Because it was popular (4)Famous entertainers have them (5)Recommendation of the sales person in the shop (6)Budget (7)Special Sales (8)Miscellaneous ( )

6．Who do you consult with when you choose？

## 7. Where do you buy gifts?

Q16 (1)Department Store (2)Jewelry/Accessory Shop (3)Remote Sales by Catalogue (4)Internet Shop (5)Miscellaneous ( )

## 8. Why is it? (Plural Answers Allowed)

Q17 (1)Desire of the receiver (2)Reliability of the shop (3)Plenty of items (4)There are favorite brands (5)Specified shop to buy(Always buy from the shop) (6)Friends often shop there (7)Rather cheap compared with quality (8)Able to get additional points when using a credit card (9)There is DM(Direct Mail) guidance when gitt seasons come (10)Miscellaneous ( )

## 9. Whom do you make a gift to?

Q18 (1)Lover (2)FatherMother (3)Children (4)Sweet heart (5)Myself (6)Miscellaneous ( )

## 10. How many times do you make gifts in a year?

Q19 (1)Once (2)Twice (3)Three times (4)Four times (5)More than that (6) None (Reason: ),

## 11. On what occasions do you give presents? (Plural Answers Allowed)

Q20 (1)Birthday (2)Xmas (3)Valentine day (4)White day (5)Grown up anniversary (6)Wedding Anniversary (7)Congratulate for birth (8)Congratulate for getting job (9)Congratulate for commencement of studying at school (10)Miscellaneous ( )

## 12What is your hobby?

| Importance |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Q21 12-1 Sports: (1)Baseball (2)Football (3)Tennis (4)Miscellaneous () | (1) | (2) | (3) | (4) | (5) |
| Q22 12-2 Reading Books: (1)Novel (2)Business Affair (3)Weekly Magazine (4)Comic (5)Miscellaneous ( ) | (1) | (2) | (3) | (4) | (5) |
| Q23 12-3 Shopping | (1) | (2) | (3) | (4) | (5) |
| Q24 12-4 Traveling: (1)Sightseeing (2)Hot Springs (3)Gourmet (4)Miscellaneous ( ) | (1) | (2) | (3) | (4) | (5) |
| Q25 12-5 Music: (1)Classic (2)Western POPS (3)Japanese POP (4)Miscellaneous ( ) | (1) | (2) | (3) | (4) | (5) |
| Q26 12-6 Movie: (1)Love (2)Action (3)Comedy (4)Miscellaneous () | (1) | (2) | (3) | (4) | (5) |
| Q27 12-7 Theater: (1)Song (2)Dance/Ballet (3)Drama (4)Miscellaneous ( ) | (1) | (2) | (3) | (4) | (5) |
| Q28 12-8 Drinking: (1)Beer (2)Wine (3)Japanese wine-sake (4)Japanese liquor-shochu (5)Miscelianeous ( ) | (1) | (2) | (3) | (4) | (5) |
| Q29 12-9 Miscellaneous: ( ) | (1) | (2) | (3) | (4) | (5) |

## 13. What kind of lifestyle do you like?

[^1]14．Which method of payment do you want to choose？

| Importance |  | 重誉 |  |  | 皆 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Q32 14－1（1）Cash／Cash on Delivery | （1） | （2） | （3） | （4） | （5） |
| Q33 14－2 Credit Card | （1） | （2） | （3） | （4） | （5） |
| Q34 14－3 Discount | （1） | （2） | （3） | （4） | （5） |
| Q35 14.4 Point Card／Coupon | （1） | （2） | （3） | （4） | （5） |
| Q36 14－5 Miscellaneous（ ） | （1） | （2） | （3） | （4） | （5） |

## 15．How often do you use the Internet？

## Q37（1）Very often（2）Sometimes（3）Rarely（4）Never

## 16．How do you use Internet？

Q38 16－1 How often do you use Internet Shopping？：（1）Very often（2）Sometimes（3）Rarely（4）Never
Q39 16－2 If you have answered＂Yes＂（16－1（1）（2）），tell us the reason why．（Plural Answers Allowed）
（1）Convenient（2）Able to compare goods easily（3）Cheap（4）Plenty of goods（5）Able to consult with other people （6）Miscellaneous（ ）
Q40 16－3 If you have answered＂No＂（16－13（4）），tell us the reason why．（Plural Answers Allowed） （1）Difficult to buy（2）anxious（3）Can not observe actual goods（4）Can not identify which shop is good（5）Can not get goods immediately（6Miscellaneous（ ）
Q41 16－4 If you have answered＂Yes＂，which method do you use？（1）PC（2）Mobile Phone（3）Miscellaneous（ ）
Q42 16－5 Do you want to buy jewelry／Accessory via the Internet？（1）Yes（2）Perhaps（3No（4）Id not know
Q43 16－6 If you have answered＂Yes＂（16－5（1）2）），tell us the reason why．（Plural Answers Allowed）
（1）Convenient（2）Able to compare goods easily（3）Cheap（4）Plenty of goods（5）Able to consult with other people
（6）Miscellaneous（ ）
Q44 16－7 If you have answered＂No＂（16－5（3）（4）），tell us the reason why．（Plural Answers Allowed） （1）Difficult to buy（2）anxious（3）Can not observe actual goods（4）Can not identify which shop is good（5）Can not get goods immediately（6）Miscellaneous（ ）

## 17．Ask about yourself？

| Q45 17－1 Sex：（1）Male（2）Female |  |  |
| :---: | :---: | :---: |
| Q46 17－2 Age：（1）Under 18（2）18～22（3）23～27（4）28～32（5）33～37（6）38～42（7）43～47（8）More than 48 |  |  |
| Q47 17－3 Occupation：（1）Student（2）Officer（3）Company Employee（4）Clerk of Organization（5）ndependents（6）Miscellaneous |  |  |
| Q48 17－4 Address：（1）Prefecture（ | ）（2）City（ | ） |


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[^1]:    Q30 13-1 Pleasure: (1)Outdoor (2)Indoor (3)Not either
    Q31 13-2 Work: (1)Desk Work (2)Outdoor activity such as visiting sales (3)Not either

