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Need identification and sensitivity analysis of consumers using Bayesian Network: A case of Fuji Shopping Street Town

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Abstract

Shopping streets at local city in Japan became old and are generally declining. In this paper, we handle the area rebirth and/or regional revitalization of shopping street. We focus on Fuji city in Japan. Four big festivals are held at Fuji city. Many people visit these festivals including residents in that area. Therefore a questionnaire investigation to the residents and visitors is conducted during these periods in order to clarify residents and visitors' needs for the shopping street, and utilize them to the plan building of the area rebirth and/or regional revitalization of shopping street. There is a big difference between Fuji Shopping Street and Yoshiwara Shopping Street. Therefore we focus Fuji Shopping Street in this paper. These are analyzed by using Bayesian Network. Sensitivity analysis is also conducted. As there are so many items, we focus on "The image of the surrounding area at this shopping street" and pick up former half and make sensitivity analysis in this paper. The analysis utilizing Bayesian Network enabled us to visualize the causal relationship among items. Furthermore, sensitivity analysis brought us estimating and predicting the prospective visitors. Sensitivity analysis is performed by back propagation method. These are utilized for constructing a much more effective and useful plan building. We have obtained fruitful results. To confirm the findings by utilizing the new consecutive visiting records would be the future works to be investigated.

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Back Propagation

1 Introduction

Shopping streets at local city in Japan are generally declining. It is because most of them were built in the so-called "High Growth Period (1954-1973)". Therefore they became old and area rebirth and/or regional revitalization are required everywhere.

There are many papers published concerning area rebirth or regional revitalization. Inoue (2017) has pointed out the importance of tourism promotion. Ingu et al.(2017) developed the project of shutter art to Wakkanai Chuo shopping street in Hokkaido, Japan. Ohkubo (2017) has made a questionnaire research at Jigenji shopping street in Kagoshima Prefecture, Japan and analyzed the current condition and future issues. For about tourism, many papers are presented from many aspects as follows.

Yoshida et al. designed and conducted a visitor survey on the spot, which used a questionnaire to investigate the activities of visitors to the Ueno district in Taito ward, Tokyo. Doi et al. analyzed the image of the Izu Peninsula as a tourist destination in their 2003 study "Questionnaire Survey on the Izu Peninsula." Kano conducted tourist behavior studies in Atami city in 2008, 2009, 2014 and in other years.

In this paper, we handle the area rebirth and/or regional revitalization of shopping street. We focus on Fuji city in Japan. Fuji city is located in Shizuoka Prefecture. Mt. Fuji is very famous all around the world and we can see its beautiful scenery from Fuji city, which is at the foot of Mt. Fuji. There are two big shopping street in Fuji city. One is Yoshiwara shopping street and another one is Fuji shopping street. They became old and building area rebirth and regional revitalization plan have started. Following investigation was conducted by the joint research group (Fuji Chamber of Commerce & Industry, Fujisan Area Management Company, Katsumata Maruyama Architects, Kougakuin University and Tokoha University). The main project activities are as follows.

- A. Investigation on the assets which are not in active use
- B. Questionnaire Investigation to Entrepreneur
- C. Questionnaire Investigation to the residents and visitors

After that, area rebirth and regional revitalization plan were built.

In this paper, we handle above stated C.

Four big festivals are held at Fuji city. Two big festivals are held at Yoshiwara shopping

street and two big festivals at Fuji shopping street.

At Yoshiwara Shopping Street, Yoshiwara Gion Festival is carried out during June and Yoshiwara Shukuba (post-town) Festival is held during October. On the other hand, Kinoene Summer Festival is conducted during August and Kinoene Autumn Festival is performed during October at Fuji Shopping Street. Many people visit these festivals including residents in that area.

Therefore questionnaire investigation of C is conducted during these periods.

Finally, we have obtained 982 sheets (Yoshiwara district: 448, Fuji district: 534).

Basic statistical analysis and Bayesian Network analysis are executed based on that.

In this paper, a questionnaire investigation is executed in order to clarify residents and visitors' needs for the shopping street, and utilize them to the plan building of the area rebirth and/or regional revitalization of shopping street. There is a big difference between Fuji Shopping Street and Yoshiwara Shopping Street. Therefore we focus Fuji Shopping Street in this paper. These are analyzed by using Bayesian Network. Sensitivity analysis is also conducted. As there are so many items, we focus on "The image of the surrounding area at this shopping street" and pick up former half and make sensitivity analysis in this paper. By that model, the causal relationship is sequentially chained by the characteristics of visitors, the purpose of visiting and the image of the surrounding area at this shopping street. The analysis utilizing Bayesian Network enabled us to visualize the causal relationship among items. Furthermore, sensitivity analysis brought us estimating and predicting the prospective visitors. Sensitivity analysis was conducted by back propagation method.

Some interesting and instructive results are obtained.

The rest of the paper is organized as follows. Outline of questionnaire investigation is stated in section 2. In section 3, Bayesian Network analysis is executed which is followed by the sensitivity analysis in section 4. Remarks is stated in section 5.

2 Outline and the Basic Statistical Results of the Questionnaire Research

2.1 Outline of the Questionnaire Research

A questionnaire investigation to the residents and visitors is conducted during these periods in order to clarify residents and visitors' needs for the shopping street and utilize them to the plan building of the area rebirth and/or regional revitalization of shopping street. The outline of questionnaire research is as follows. Questionnaire sheet is attached in Appendix 1.

(1) Scope of : Residents and visitors who have visited four big investigation festivals at Fuji city in Shizuoka Prefecture, Japan

(2) Period : Yoshiwara Gion Festival: June 11,12/2016

Yoshiwara Shukuba (post-town) Festival: October

9/2016

Kinoene Summer Festival: August 6,7/2016 Kinoene Autumn Festival: October 15,16/2016

(3) Method : Local site, Dispatch sheet, Self writing

(4) Collection : Number of distribution 1400

Number of collection 982(collection rate 70.1%)

Valid answer 982

2.2 Basic Statistical Results

Now, we show the main summary results by single variable.

2.2.1 Characteristics of answers

(1) Sex (Q7)

Male 43.3%, Female 56.7%

These are exhibited in Figure 1.

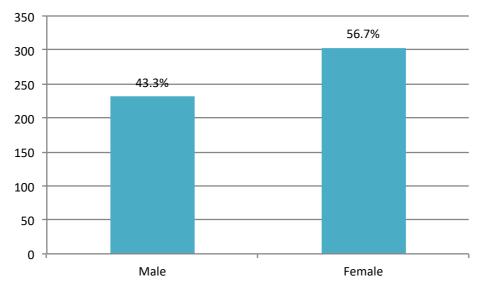


Figure 1: Sex (Q7)

(2) Age (Q8) 10th 20.6%, 20th 16.7%, 30th 25.3%, 40th 17.0%, 50th 10.1%, 60th 6.9%, More than 70 3.4%

These are exhibited in Figure 2.

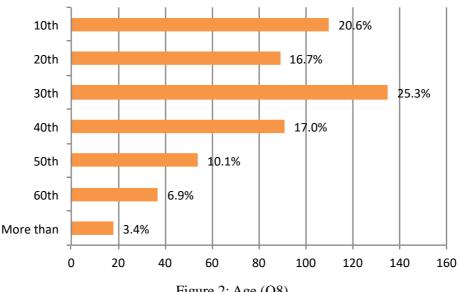


Figure 2: Age (Q8)

(3) Residence (Q9)

a. Fuji city 82.8%, b. Fujinomiya city 8.8%, c. Numazu city 2.1%, d. Mishima city 0.7%, e. Shizuoka city 0.9%, F. Else (in Shizuoka Prefecture) 2.1%, g. Outside of Shizuoka Prefecture 2.6%

These are exhibited in Figure 3.

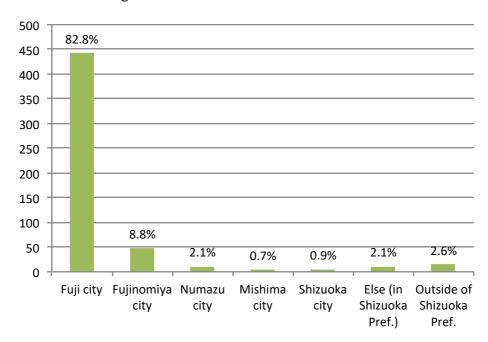


Figure 3: Residence (Q9)

(4) How often do you come to this shopping street? (Q1) Everyday 21.2%, More than 1 time a week 17.2%, More than 1 time a month 22.7%, More than 1 time a year 26.8%, First time 3.0%, Not filled in 4.1%

These are exhibited in Figure 4.

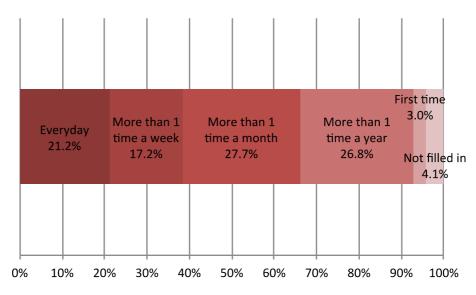


Figure 4: How often do you come to this shopping street? (Q1)

(5) What is the purpose of visiting here? (Q2) Shopping 17.2%, Eating and drinking 13.6%, Business 7.4%, Celebration, event 34.1%, Leisure, amusement 6.1%, miscellaneous 21.6% These are exhibited in Figure 5.

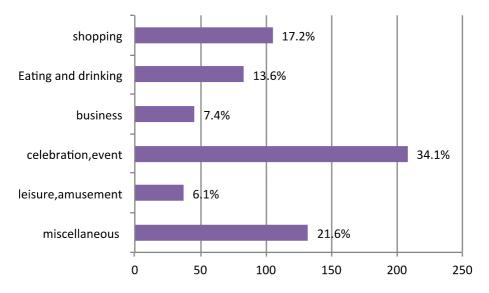


Figure 5: What is the purpose of visiting here? (Q2)

(6) How do you feel about the image of the surrounding area at this shopping street? (Q3)

Beautiful 51.2%, Ugly 48.8%, Of the united feeling there is 44.3%, Scattered 55.7%,

Varied 38.5%, Featureless 61.5%, New 37.1%, Historic 62.9%, Full of nature 37.1%, Urban 62.9%,

Cheerful 44.1%, Gloomy 55.9%, Individualistic 42.0%, Conventional 58.0%, Friendly 57.8%,

Unfriendly 42.2%, Healed 53.3%, Stimulated 46.7%, Open 44.8%, exclusive 55.2%, Want to reside 43.6%,

Do not want to reside 56.4%, Warm 55.1%, Aloof 44.9%, Fascinating 42.1%, Not fascinating 57.9%,

Want to play 47.1%, Want to examine deliberately 52.9%, Lively 36.8%, Calm 63.2%, Atmosphere of urban 28.0%, Atmosphere of rural area 72.0% These are exhibited in Figure 6.

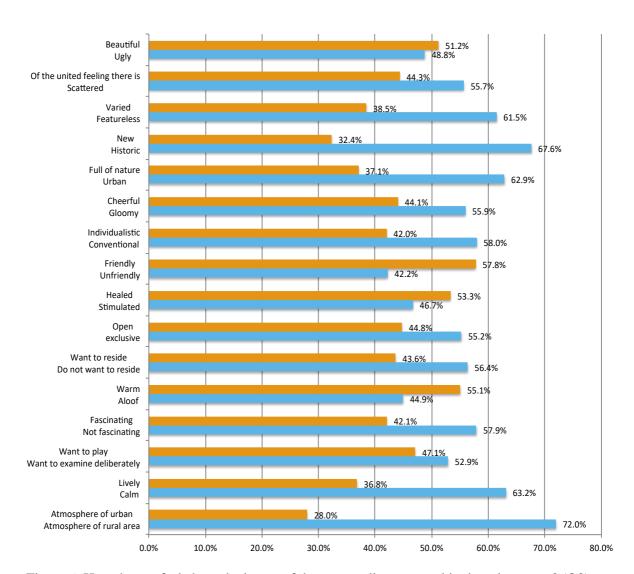


Figure 6: How do you feel about the image of the surrounding area at this shopping street? (Q3)

- (7) There are many old buildings at the age of nearly 50 years. Do you think we can still use them? (Q4)
- . Can use it 48.7%, Cannot use it 29.2%, Have no idea 22.1% These are exhibited in Figure 7.

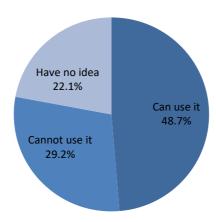


Figure 7: There are many old buildings at the age of nearly 50 years. Do you think we can still use them? (Q4)

3 Bayesian Network Analysis

In constructing Bayesian Network, it is required to check the causal relationship among groups of items.

Based on this, a model is built as is shown in Figure 8.

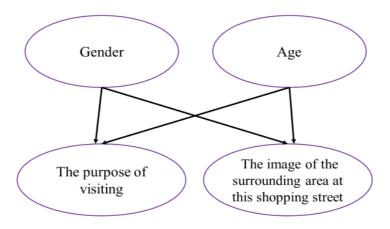


Figure 8: A Built Model

We used BAYONET software (http://www.msi.co.jp/BAYONET/). When plural nodes exist in the same group, it occurs that causal relationship is hard to set a priori. In that case, BAYONET system set the sequence automatically utilizing AIC standard. Node and parameter of Figure 8 are exhibited in Table 1.

Table 1: Node and Parameter

Node	Parame	eter								
Node	1	2	3	4	5	6	7	8	9	10
Gender	Male	Femal e								
Age	10th	20th	30th	40th	50th	60th	Mor e than 70			
The purpose of visiting	Shop ping	Eating and drinkin	Busines s	Cele brati on , even t	Leis ure, amu sem ent	misc ellan eous				
The image of the surroundin g area at this shopping street	Beaut iful	Ugly	Of the united feeling there is	Scat tere d	Vari ed	Feat urele ss	New	Hist oric	Full of natu re	Urba n

Node	Parame	eter								
Noue	11	12	13	14	15	16	17	18	19	20
The image					Frie	Unfr		Stim	Ope	Excl
of the				Con	ndly	iendl		ulate	n	usiv
surroundin	Char	Cloom	Tandinal day			y	Hasl	d		e
g area at	Cheer	Gloom	Individu	vent			Heal			
this	ful	У	alistic	iona			ed			
shopping				l						
street										

Nodo	Parame	eter								
Node	21	22	23	24	25	26	27	28	29	30
The image					Fasc	Not		Wan	Live	Cal
of the		Do not			inati	fasci		t to	ly	m
surroundin	Want	want		Alo	ng	natin	Wan	exa		
g area at	to	to	Warm	of		g	t to	mine		
this	reside	reside		OI			play	delib		
shopping		Testue						erate		
street								ly		

Node	Parameter				
Node	31	32			
The image of the		Atmos			
surroundin	Atmo spher	phere			
g area at this	e of urban	of rural			
shopping	urban	area			
street					

In the next section, sensitivity analysis is achieved by back propagation method. Back propagation method is conducted in the following method (Figure 9).

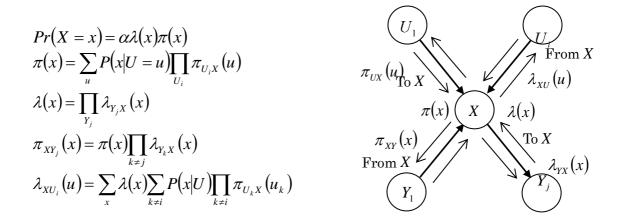


Figure 9: Back propagation method (Takeyasu et al., 2010)

4 Sensitivity Analysis

Now, posterior probability is calculated by setting evidence as, for example, 1.0. Comparing Prior probability and Posterior probability, we can seek the change and confirm the preference or image of the surrounding area at this shopping street. We set evidence to all parameters. Therefore the analysis volume becomes too large. In this paper, we focus on "The image of the surrounding area at this shopping street" and pick up former half and make sensitivity analysis. We prepare another paper for the rest of them.

As stated above, we set evidence for each parameter, and the calculated posterior probability is exhibited in Appendix 2. The value of "Posterior probability – Prior probability" (we call this "Difference of probability" hereafter) is exhibited in Appendix 3. The sensitivity analysis is executed by mainly using this table.

Here, we classify each item by the strength of the difference of probability.

- Strong (++,--): Select major parameter of which absolute value of difference of probability is more than 0.05
- Medium (+,—): Select major parameter of which absolute value of difference of probability is more than 0.01
- Weak: Else

In selecting items, negative value does not necessarily have distinct meaning, therefore we mainly pick up positive value in the case meaning is not clear.

Now we examine each for Strong and Medium case.

- **4.1** Sensitively Analysis for "The image of the surrounding area at this shopping street"
- (1) Setting evidence to "Beautiful"

After setting evidence to "Beautiful", the result is exhibited in Table 2.

Eating and drinking **Business** Celebration, event Scattered Full of nature + +Cheerful + Individualistic +Friendly + Open Exclusive Warm +

Table 2: Setting evidence to "Beautiful" case

Aloof	_
Fascinating	+
Want to play	+
Lively	+
Male	_
Female	+
Age: 10th	++
Age: 20th	+
Age: 30th	+
Age: 40th	_
Age: 50th	_
Age: 60th	_

We can observe that "Those who have an image of the surrounding area at this shopping street as "Beautiful" had come under the image of the surrounding area at this shopping street as "Full of nature", "Cheerful", "Individualistic", "Friendly", "Open", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th", "20th" or "30th" in which the gender is "Female".

(Strong part is indicated by bold font.)

(2) Setting evidence to "Ugly"

After setting evidence to "Ugly", the result is exhibited in Table 3.

Table 3: Setting evidence to "Ugly" case

Open	_
Want to play	_
Age: 10th	_
Age: 20th	
Age: 30th	_
Age: 50th	++
Age: 60th	
Age: More than 70	+

We can observe that "Those who have an image of the surrounding area at this shopping street as "Ugly" had come by an age of "50th" or " More than 70".

(3) Setting evidence to "Of the united feeling there is"

After setting evidence to "Of the united feeling there is", the result is exhibited in Table 4.

Table 4: Setting evidence to "Of the united feeling there is" case

Eating and drinking	_
Business	_
Celebration, event	_
Cheerful	+
Individualistic	+
Conventional	_
Friendly	+
Unfriendly	_
Open	+
Exclusive	_
Want to reside	+
Warm	+
Aloof	_
Fascinating	+
Want to play	+
Lively	+
Age: 10th	++
Age: 30th	+
Age: 40th	_
Age: 50th	+
Age: 60th	
Age: More than 70	++

We can observe that "Those who have an image of the surrounding area at this shopping street as "Of the united feeling there is" had come under the image of the surrounding area at this shopping street as "Cheerful", "Individualistic", "Friendly", "Open", "Want to reside", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th", "30th", "50th" or "More than 70".

(4) Setting evidence to "Scattered"

After setting evidence to "Scattered", the result is exhibited in Table 5.

Table 5: Setting evidence to "Scattered" case

Eating and drinking	+
Business	+
Celebration, event	+
Beautiful	_
Ugly	+
Varied	_
Featureless	+
Full of nature	_
Cheerful	_
Gloomy	+
Individualistic	_
Conventional	+
Friendly	_
Unfriendly	+
Healed	_
Stimulated	+
Open	_
Exclusive	+
Want to reside	_
Do not want to reside	+
Warm	_
Aloof	+
Fascinating	_
Not fascinating	+
Want to play	_
Lively	_
Calm	+
Age: 10th	
Age: 20th	
Age: 40th	++
Age: 50th	++
Age: 60th	++
Age: More than 70	+

We can observe that "Those who have an image of the surrounding area at this shopping street as "Scattered" had come with the purpose of visiting for "Eating and drinking", "Business" or "Celebration, event" under the image of the surrounding area at this shopping street as "Ugly", "Featureless", "Gloomy", "Conventional", "Unfriendly", "Stimulated", "Exclusive", "Do not want to reside", "Aloof", "Not fascinating" or "Calm" of an age of "40th", "50th", "60th" or "More than 70".

(5) Setting evidence to "Varied"

After setting evidence to "Varied", the result is exhibited in Table 6.

Table 6: Setting evidence to "Varied" case

Individualistic	+
Age: 10th	++
Age: 20th	_
Age: 40th	_
Age: 50th	+
Age: 60th	
Age: More than 70	

We can observe that "Those who have an image of the surrounding area at this shopping street as "Varied" had come under the image of the surrounding area at this shopping street as "Individualistic" of an age of "10th" or "50th".

(6) Setting Evidence to "Featureless"

After setting evidence to "Featureless", the result is exhibited in Table 7.

Table 7: Setting evidence to "Featureless" case

Leisure, amusement	+
Scattered	+
Cheerful	_
Unfriendly	+
Healed	_
Stimulated	+
Open	_
Exclusive	+
Fascinating	_

Want to play	_
Lively	_
Age: 10th	_
Age: 20th	
Age: 40th	+
Age: 50th	++
Age: 60th	++
Age: More than 70	+

We can observe that "Those who have an image of the surrounding area at this shopping street as "Featureless" had come with the purpose of visiting for "Leisure, amusement" under the image of the surrounding area at this shopping street as "Scattered", "Unfriendly", "Stimulated" or "Exclusive" of an age of "40th", "50th", "60th" or "More than 70".

(7) Setting Evidence to "New"

After setting evidence to "New", the result is exhibited in Table 8.

Table 8: Setting evidence to "New" case

Male	_
Female	+
Age: 10th	_
Age: 20th	+
Age: 40th	+
Age: 50th	_
Age: 60th	+

We can observe that "Those who have an image of the surrounding area at this shopping street as "New" had come by an age of "20th", "40th" or "60th" in which the gender is "Female".

(8) Setting evidence to "Historic"

After setting evidence to "Historic", the result is exhibited in Table 9.

Table 9: Setting evidence to "Historic" case

Male	_
Female	+
Age: 20th	
Age: 30th	+
Age: 40th	_
Age: 50th	+
Age: 60th	
Age: More than 70	

We can observe that "Those who have an image of the surrounding area at this shopping street as "Historic" had come by an age of "30th" or "50th" in which the gender is "Female".

(9) Setting evidence to "Full of nature"

After setting evidence to "Full of nature", the result is exhibited in Table 10.

Table 10: Setting evidence to "Full of nature" case

Eating and drinking	_
Business	_
Celebration, event	_
Leisure, amusement	+
Beautiful	+
Cheerful	+
Individualistic	+
Conventional	_
Friendly	+
Open	+
Exclusive	_
Warm	+
Fascinating	+
Want to play	+
Lively	+
Male	_
Female	+
Age: 10th	++

Age: 20th	+
Age: 40th	
Age: 50th	_
Age: 60th	_
Age: More than 70	++

We can observe that "Those who have an image of the surrounding area at this shopping street as "Full of nature" had come with the purpose of visiting for "Leisure, amusement" under the image of the surrounding area at this shopping street as "Beautiful", "Cheerful", "Individualistic", "Friendly", "Open", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th", "20th" or "More than 70" in which the gender is "Female".

(10) Setting evidence to "Urban"

After setting evidence to "Urban", the result is exhibited in Table 11.

Table 11: Setting evidence to "Urban" case

Age: 10th	+
Age: 20th	_
Age: 30th	_
Age: 40th	_
Age: 50th	+
Age: 60th	++
Age: More than 70	_

We can observe that "Those who have an image of the surrounding area at this shopping street as "Urban" had come by an age of "10th", "50th" or "60th".

(11) Setting evidence to "Cheerful"

After setting evidence to "Cheerful", the result is exhibited in Table 12.

Table 12: Setting evidence to "Cheerful" case

Celebration, event	_
Leisure, amusement	_
Of the united feeling there is	+
Scattered	_
Varied	+

Individualistic	+
Conventional	_
Friendly	+
Unfriendly	_
Healed	+
Open	+
Exclusive	_
Want to reside	+
Warm	+
Aloof	_
Fascinating	+
Not fascinating	_
Want to play	+
Lively	+
Male	_
Female	+
Age: 10th	++
Age: 20th	++
Age: 30th	+
Age: 40th	+
Age: 50th	
Age: 60th	
Age: More than 70	

We can observe that "Those who have an image of the surrounding area at this shopping street as "Cheerful" had come under the image of the surrounding area at this shopping street as "Of the united feeling there is", "Varied", "Individualistic", "Friendly", "Healed", "Want to reside", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th" or "20th", "30th" or "40th" in which the gender is "Female".

(12) Setting evidence to "Gloomy"

After setting evidence to "Gloomy", the result is exhibited in Table 13.

Table 13: Setting evidence to "Gloomy" case

Eating and drinking	+
Business	+
Celebration, event	+
Beautiful	_
Of the united feeling there is	_
Scattered	+
Varied	_
Individualistic	_
Conventional	+
Friendly	_
Unfriendly	+
Healed	_
Stimulated	+
Open	_
Exclusive	+
Warm	_
Aloof	+
Fascinating	_
Not fascinating	+
Want to play	_
Lively	_
Male	+
Female	_
Age: 10th	
Age: 20th	_
Age: 30th	
Age: 40th	+
Age: 50th	++
Age: 60th	++
Age: More than 70	++
	_

We can observe that "Those who have an image of the surrounding area at this shopping street as "Gloomy" had come with the purpose of visiting for "Eating and drinking", "Business" or "Celebration, event" under the image of the surrounding area at this shopping street as "Scattered", "Conventional", "Unfriendly", "Stimulated", "Exclusive",

"Aloof" or "Not fascinating" of an age of "40th", "50th", "60th" or "More than 70" in which the gender is "Male.

(13) Setting evidence to "Individualistic"

After setting evidence to "Individualistic", the result is exhibited in Table 14.

Table 14: Setting evidence to "Individualistic" case

Table 14. Setting evidence to individualistic cas	
Eating and drinking	_
Business	_
Celebration, event	_
Of the united feeling there is	+
Scattered	_
Varied	+
New	_
Full of nature	+
Cheerful	+
Friendly	+
Unfriendly	_
Healed	+
Open	+
Exclusive	_
Want to reside	+
Warm	+
Aloof	_
Fascinating	+
Want to play	+
Lively	+
Male	_
Female	+
Age: 10th	++
Age: 20th	
Age: 30th	
Age: 40th	
Age: 50th	+
Age: 60th	
Age: More than 70	

We can observe that "Those who have an image of the surrounding area at this shopping street as "Individualistic" had come under the image of the surrounding area at this shopping street as "Of the united feeling there is", "Varied", "Full of nature", "Cheerful", "Friendly", "Healed", "Open", "Want to reside", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th" or "50th" in which the gender is "Female".

(14) Setting evidence to "Conventional"

After setting evidence to "Conventional", the result is exhibited in Table 15.

Table 15: Setting evidence to "Conventional" case

Table 15: Setting evidence to "Conventional" case	
Eating and drinking	+
Business	+
Celebration, event	+
Beautiful	
Of the united feeling there is	
Scattered	+
Varied	
Full of nature	
Cheerful	
Gloomy	+
Friendly	
Unfriendly	+
Healed	
Stimulated	+
Open	
Exclusive	+
Want to reside	
Warm	
Aloof	+
Fascinating	
Not fascinating	+
Want to play	_
Lively	_
Male	+
Female	

Age: 10th	
Age: 20th	+
Age: 30th	++
Age: 40th	+
Age: 50th	++
Age: 60th	++
Age: More than 70	+

We can observe that "Those who have an image of the surrounding area at this shopping street as "Conventional" had come with the purpose of visiting for "Eating and drinking", "Business" or "Celebration, event" under the image of the surrounding area at this shopping street as "Scattered", "Gloomy", "Unfriendly", "Stimulated", "Exclusive", "Aloof" or "Not fascinating" of an age of "20th", "30th", "40th", "50th", "60th" or "More than 70" in which the gender is "Male".

(15) Setting evidence to "Friendly"

After setting evidence to "Friendly", the result is exhibited in Table 16.

Table 16: Setting evidence to "Friendly" case

Tuble 10. Setting evidence to Thendry ease	
Eating and drinking	_
Business	_
Celebration, event	_
Beautiful	+
Of the united feeling there is	+
Scattered	_
Varied	+
New	_
Full of nature	+
Cheerful	+
Gloomy	_
Individualistic	+
Conventional	_
Healed	+
Stimulated	_
Open	+
Exclusive	_

Want to reside	+
Do not want to reside	_
Warm	+
Aloof	-
Fascinating	+
Not fascinating	_
Want to play	+
Lively	+
Calm	_
Male	_
Female	+
Age: 10th	++
Age: 20th	_
Age: 30th	_
Age: 40th	
Age: 50th	_
Age: 60th	
Age: More than 70	

We can observe that "Those who have an image of the surrounding area at this shopping street as "Friendly" had come under the image of the surrounding area at this shopping street as "Beautiful", "Of the united feeling there is", "Varied", "Full of nature", "Cheerful", "Individualistic", "Healed", "Open", "Want to reside", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th" in which the gender is "Female".

(16) Setting evidence to "Unfriendly"

After setting evidence to "Unfriendly", the result is exhibited in Table 17.

Table 17: Setting evidence to "Unfriendly" case

Leisure, amusement	+
Of the united feeling there is	_
Scattered	+
Varied	_
Cheerful	_
Individualistic	_

Conventional	+
Healed	_
Stimulated	+
Open	_
Exclusive	+
Warm	_
Aloof	+
Fascinating	_
Want to play	_
Lively	_
Age: 10th	
Age: 20th	_
Age: 30th	_
Age: 40th	+
Age: 50th	++
Age: 60th	++
Age: More than 70	++

We can observe that "Those who have an image of the surrounding area at this shopping street as "Unfriendly" had come with the purpose of visiting for "Leisure, amusement" under the image of the surrounding area at this shopping street as "Scattered", "Conventional", "Stimulated", "Exclusive" or "Aloof" of an age of "40th", "50th", "60th" or "More than 70".

5 Remarks

The Results for Bayesian Network Analysis are as follows.

In the Bayesian Network Analysis, model was built under the examination of the causal relationship among items. Sensitively Analysis was conducted after that. The main result of sensitively analysis is as follows.

We can observe that "Those who have an image of the surrounding area at this shopping street as "Beautiful" had come under the image of the surrounding area at this shopping street as "Full of nature", "Cheerful", "Individualistic", "Friendly", "Open", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th", "20th" or "30th" in which the gender is "Female".

We can observe that "Those who have an image of the surrounding area at this shopping street as "Of the united feeling there is" had come under the image of the surrounding area at this shopping street as "Cheerful", "Individualistic", "Friendly", "Open", "Want to reside", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th", "30th", "50th" or "More than 70".

We can observe that "Those who have an image of the surrounding area at this shopping street as "Scattered" had come with the purpose of visiting for "Eating and drinking", "Business" or "Celebration, event" under the image of the surrounding area at this shopping street as "Ugly", "Featureless", "Gloomy", "Conventional", "Unfriendly", "Stimulated", "Exclusive", "Do not want to reside", "Aloof", "Not fascinating" or "Calm" of an age of "40th", "50th", "60th" or "More than 70".

We can observe that "Those who have an image of the surrounding area at this shopping street as "Full of nature" had come with the purpose of visiting for "Leisure, amusement" under the image of the surrounding area at this shopping street as "Beautiful", "Cheerful", "Individualistic", "Friendly", "Open", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th", "20th" or "More than 70" in which the gender is "Female".

We can observe that "Those who have an image of the surrounding area at this shopping street as "Cheerful" had come under the image of the surrounding area at this shopping street as "Of the united feeling there is", "Varied", "Individualistic", "Friendly", "Healed", "Want to reside", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th" or "20th", "30th" or "40th" in which the gender is "Female".

We can observe that "Those who have an image of the surrounding area at this shopping street as "Gloomy" had come with the purpose of visiting for "Eating and drinking", "Business" or "Celebration, event" under the image of the surrounding area at this shopping street as "Scattered", "Conventional", "Unfriendly", "Stimulated", "Exclusive", "Aloof" or "Not fascinating" of an age of "40th", "50th", "60th" or "More than 70" in which the gender is "Male.

We can observe that "Those who have an image of the surrounding area at this shopping street as "Friendly" had come under the image of the surrounding area at this shopping street as "Beautiful", "Of the united feeling there is", "Varied", "Full of nature", "Cheerful", "Individualistic", "Healed", "Open", "Want to reside", "Warm",

"Fascinating", "Want to play" or "Lively" of an age of "10th" in which the gender is "Female".

6 Conclusion

Shopping streets at local city in Japan became old and are generally declining. In this paper, we handle the area rebirth and/or regional revitalization of shopping street. We focus on Fuji city in Japan. Four big festivals are held at Fuji city. There is a big difference between Fuji Shopping Street and Yoshiwara Shopping Street. Therefore we focus Fuji Shopping Street in this paper. Many people visit these festivals including residents in that area. Therefore a questionnaire investigation to the residents and visitors is conducted during these periods in order to clarify residents and visitors' needs for the shopping street, and utilize them to the plan building of the area rebirth and/or regional revitalization of shopping street. These are analyzed by using Bayesian Network. Sensitivity analysis is also conducted. As there are so many items, we focus on "The image of the surrounding area at this shopping street" and pick up former half and make sensitivity analysis in this paper. By that model, the causal relationship is sequentially chained by the characteristics of visitors, the purpose of visiting and the image of the surrounding area at this shopping street.

The Results for Bayesian Network Analysis are as follows.

In the Bayesian Network Analysis, model was built under the examination of the causal relationship among items. Sensitively Analysis was conducted after that. The main result of sensitively analysis is as follows.

We can observe that "Those who have an image of the surrounding area at this shopping street as "Scattered" had come with the purpose of visiting for "Eating and drinking", "Business" or "Celebration, event" under the image of the surrounding area at this shopping street as "Ugly", "Featureless", "Gloomy", "Conventional", "Unfriendly", "Stimulated", "Exclusive", "Do not want to reside", "Aloof", "Not fascinating" or "Calm" of an age of "40th", "50th", "60th" or "More than 70".

We can observe that "Those who have an image of the surrounding area at this shopping street as "Full of nature" had come with the purpose of visiting for "Leisure, amusement" under the image of the surrounding area at this shopping street as "Beautiful", "Cheerful", "Individualistic", "Friendly", "Open", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th", "20th" or "More than 70" in which the gender is "Female".

We can observe that "Those who have an image of the surrounding area at this shopping street as "Cheerful" had come under the image of the surrounding area at this shopping street as "Of the united feeling there is", "Varied", "Individualistic", "Friendly", "Healed", "Want to reside", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th" or "20th", "30th" or "40th" in which the gender is "Female".

We can observe that "Those who have an image of the surrounding area at this shopping street as "Friendly" had come under the image of the surrounding area at this shopping street as "Beautiful", "Of the united feeling there is", "Varied", "Full of nature", "Cheerful", "Individualistic", "Healed", "Open", "Want to reside", "Warm", "Fascinating", "Want to play" or "Lively" of an age of "10th" in which the gender is "Female".

The analysis utilizing Bayesian Network enabled us to visualize the causal relationship among items. Furthermore, sensitivity analysis brought us estimating and predicting the prospective visitors. Sensitivity analysis was achieved by back propagation method. These are utilized for constructing a much more effective and useful plan building. Although it has a limitation that it is restricted in the number of research, we could obtain the fruitful results. To confirm the findings by utilizing the new consecutive visiting records would be the future works to be investigated.

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APPENDIX 1

Questionnaire Sheet about the Image Around the Shopping Street

1. How often do	you come to this shopp	ing street?		
a. Everyday b	. () times a week c. () times a month	d. () times a	year
e. miscellaneou	s ()		
1	burpose of visiting here? (b. eating and drinking ous (`	,	ent e. leisure,
1. IIIISCOIIUIIC	,	,		

3. How do you feel about the image of the surrounding area at this shopping street? Select the position

Befeet the position						
Beautiful	•	•	•	•	•	Ugly
Of the united		•	•	•		Scattered
feeling there is						
Varied	•	•	•	•		Featureless
New	•	•	•	•		Historic
Full of nature	•	•	•	•	•	Urban
Cheerful	•	•	•	•		Gloomy
Individualistic	•	•	•	•	•	Conventional
Friendly	•	•	•	•	•	Unfriendly
Healed	•	•	•	•	•	Stimulated
Open	•	•	•	•	•	exclusive
Want to reside	•	•	•	•		Do not want to
						reside
Warm	•	•	•	•	•	Aloof
Fascinating	•	•	•	•	•	Not fascinating
Want to play		•	•	•		Want to
						examine
						deliberately
Lively	•	•	•	•	•	Calm
Atmosphere of	•	•	•	•	•	Atmosphere of
urban						rural area

4. There are many old building at the age of nearly 50 years. Do you think we can still
use them? a. Can use it b. Cannot use it C. Have no idea
a. Can use it b. Cannot use it c. Have no idea
5. Is there any functions or facilities that will be useful?
6. Comments
O. Comments
7. Sex
a. Male b. Female
0. 4
8. Age a.10th b.20th c.30th d.40th e.50th f.6th g. More than 70
a.10th 0.20th 0.30th 0.40th 0.30th 1.0th g. Word than 70
9. Residence
a. Fuji City b. Fujinomiya City c. Numazu City d. Mishima City e. Shizuoka
City f. Miscellaneous in Shizuoka Prefecture
g. Outside of Shizuoka Prefecture [

APPENDIX 2Calculated posterior probability

			Age				Common	Condor																area at this shopping street	The image of the surrounding																		visiting	The nurses of		name_fuji
More than 70	400	400	40th	30th	20th	10th	Femule	Male	Atmosphere of rural area	Atmosphere of urban	Calm	Lively	Want to examine deliberately	Want to play	Not fascinating	Fascinating	Aloof	Warm	Do not want to reside	Want to reside	Exclusive	Open	Stimulated	Healed	Unfriendly	Friendly	Conventional	Individual istic	Gloomy	Cheerful	Urban	Full of nature	Historic	New	Featureless	Varied	Scattered	Of the united feeling there is	Ugly	Beautiful	Leisure, amusement	Celebration, event	Business	Eating and drinking	Shopping	state
0.035	0.00	0.102	0.170	0.251	0.166	0.205	0.567	0.433	0.629	0.097	0.520	0.181	0.312	0.218	0.423	0.223	0.252	0.398	0.395	0.241	0.393	0.257	0.180	0.285	0.236	0.443	0.438	0.238	0.432	0.259	0.231	0.25.0	0.561	0.124	0.490	0.175	0.381	0.255	0.292	0.339	0.089	0.396	801.0	0.174	0.215	Prior SI
0.069	0.079	0.081	0.168	0.229	0.203	0.172	0.636	0.364	0.630	0.095	0.530	0.178	0.321	0.217	0.424	0.222	0.254	0.393	0.397	0.243	0.407	0.254	0.187	0.279	0.245	0.434	0.440	0.232	0.434	0.259	0.228	0.374	0.565	0.128	0.491	0.171	0.381	0.251	0.287	0.342	0.098	0.392	0.101	0.172	-	The purpose of visiting Shopping Enting and drinking
0.019	0.051	0.140	0.225	0.263	0.219	0.082	0.515	0.485	0.633	0.099	0.528	0.175	0.314	0.202	0.435	0.205	0.264	0.375	0.396	0.230	0.413	0.236	0.182	0.279	0.242	0.413	0.471	0.214	0.444	0.251	0.225	0.350	0.557	0.129	0.491	0.167	0.399	0.239	0.299	0.324	0.080	0.433	0.117	-	0.211	
0.032	0.053	0.146	0.139	0.286	0.256	0.088	0.444	0.556	0.626	0.097	0.527	0.176	0.312	0.198	0.430	0.210	0.269	0.370	0.392	0.231	0.404	0.239	0.185	0.282	0.242	0.416	0.479	0.213	0.445	0.249	0.223	0.358	0.556	0.124	0.487	0.167	0.392	0.241	0.299	0.328	0.079	0.435	1	0.197	0.208	Business
0.037	990.0	0.136	0.203	0.277	0.169	0.111	0.508	0.492	0.635	0.099	0.528	0.173	0.313	0.200	0.436	0.208	0.265	0.375	0.400	0.230	0.411	0.237	0.183	0.275	0.246	0.417	0.466	0.218	0.447	0.244	0.228	0.355	0.559	0.127	0.496	0.168	0.400	0.240	0.300	0.326	0.084	1	0.113	0.191	0.211	Colebration, event
0.086	0.133	0.058	0.143	0.261	0.124	0.197	0.715	0.285	0.643	0.090	0.538	0.174	0.330	0.216	0.428	0.223	0.251	0.395	0.406	0.246	0.407	0.256	0.193	0.267	0.257	0.435	0.432	0.237	0.435	0.249	0.235	0.381	0.570	0.128	0.503	0.171	0.390	0.253	0.285	0.346		0.374	0.090	0.155	0.233	Lei sure. am usement
6 0.034	3 0.063	8 0.089	0.130	0.263	4 0.177	7 0.244	0.610	0.390	3 0.623	0.095	8 0.514	0.186	0.310	6 0.228	8 0.415	3 0.232	0.244	5 0.409	6 0.388	6 0.246	7 0.381	6 0.266	0.178	7 0.291	7 0.230	5 0.456	2 0.426	7 0.247	0.421	9 0.268	5 0.231	0.380	0.564	8 0.123	3 0.484	0.179	0.368	3 0.260	0.000	5	0.091	4 0.380	0.099	0.167	3 0.216	The image of Beautiful
4 0.039	3 0.056	9 0.160	0 0.174	3 0.240	7 0.136	4 0.195	0 0.556	0 0.444	3 0.631	5 0.099	4 0.521	6 0.179	0 0.310	8 0.207	5 0.429	2 0.217	4 0.259	9 0.393	8 0.395	6 0.239	0.401	6 0.247	8 0.183	0.283	0 0.241	6 0.439	6 0.445	7 0.240	0.438	8 0.252	0.233	0.367	4 0.563	3 0.122	0.494	9 0.176	8 0.392	0.251	0	_	0.086	0.407	9 0.105	7 0.178	6 0.211	The image of the surrounding area at this shopping street Beautiful Ugly Of the united Scattered
9 0.030	0.056	0.079	4 0.159	0.216	6 0.168	5 0.292	6 0.575	4 0.425	0.622	9 0.097	0.511	9 0.188	0.310	7 0.233	9 0.413	7 0.237	9 0.243	0.416	5 0.390	9 0.250	0.377	7 0.273	0.176	3 0.295	0.225	9 0.465	0.416	0.255	8 0.419	2 0.273	3 0.233	7 0.379	3 0.562	0.120	0.481	18T0 9	2	_	0.288	0.347	6 0.088	7 0.374	0.096	8 0.163	0.212	ng area at this s Of the united feeling there is
0 0.037	6 0.103	9 0.146	9 0.198	6 0.247	8 0.133	2 0.137	5 0.558	5 0.442	2 0.641	7 0.097	0.533	8 0.172	0 0.318	3 0.198	3 0.438	7 0.207	3 0.263	6 0.381	0 0.405	0 0.233	7 0.412	3 0.238	6 0.188	5 0.271	5 0.252	5 0.421	6 0.458	5 0.226	9 0.448	3 0.241	3 0.235	9 0.359	2 0.560	0.127	0.504	0.169	0	1	8 0.301	7 0.328	8 0.090	4 0.416	0.106	3 0.183	2 0.214	shopping street Scattered
0.025	0.048	91.0	98 0.140	17 0.258	33 0.148	0.273	58 0.584	12 0.416	11 0.623	97 0.097	33 0.508	72 0.188	18 0.306	98 0.229	38 0.415	0.233	53 0.244	0.413	0.387	33 0.247	12 0.376	38 0.268	38 0.174	71 0.295	52 0.226	0.464	58 0.422	26 0.254	18 0.420	11 0.269	35 0.233	59 0.379	90 0.564	27 0.120	4	99	0.368	0 0.264	0.293	28 0.347	0.087	16 0.381	0.098	33 0.166	0.209	Varied
25 0.038	48 0.093	08 0.115	40 0.179	58 0.248	48 0.142	73 0.185	84 0.569	16 0.431	23 0.635	97 0.096	0.526	88 0.177	0.316	29 0.210	15 0.429	33 0.217	44 0.256	13 0.392	87 0.401	47 0.239	76 0.400	68 0.250	74 0.184	95 0.278	26 0.244	64 0.435	22 0.444	54 0.235	20 0.439	69 0.250	33 0.234	79 0.367	64 0.561	20 0.125	0	_	68 0.392	64 0.250	93 0.294	47 0.336	87 0.091	81 0.401	98 0.102	66 0.175	0.215	Featureless
8 0.035	3 0.080	5 0.089	9 0.212	8 0.253	2 0.189	5 0.141	9 0.620	0.380	5 0.633	6 0.097	6 0.527	7 0.177	6 0.317	0 0.215	9 0.427	7 0.216	6 0.253	2 0.391	0.398	9 0.237	0 0.406	0 0.248	4 0.182	8 0.277	4 0.242	5 0.427	4 0.447	5 0.226	9 0.435	0 0.256	4 0.227	7 0.364	_	5	0.493	0 0.170	2 0.389	0 0.248	4 0.288	6 0.336	1 0.092	0.404	2 0.103	5 0.181	5 0.222	New
5 0.041	0.064	0.104	2 0.165	3 0.259	9 0.159	0.208	0.581	0.419	3 0.628	7 0.097	7 0.519	7 0.181	7 0.311	5 0.218	7 0.422	6 0.224	3 0.252	0.398	8 0.394	7 0.241	6 0.393	8 0.256	2 0.179	7 0.285	2 0.236	7 0.445	7 0.437	6 0.239	0.431	6 0.259	7 0.231	4 0.372	0	_	3 0.489	0.176	9 0.380	8 0.255	8 0.293	6 0.341	2 0.090	4 0.394	0.102	0.173	0.216	Historic
0.041	4 0.066	4 0.097	5 0.119	9 0.253	9 0.176	8 0.248	0.608	9 0.392	8 0.624	7 0.095	9 0.515	0.186	0.312	8 0.226	2 0.416	4 0.232	2 0.245	8 0.409	4 0.389	1 0.247	3 0.383	6 0.265	9 0.180	5 0.291	6 0.232	5 0.457	7 0.426	9 0.248	0.422	9 0.267	1	2	0.564	0 0.122	9 0.485	6 0.180	0 0.369	5 0.260	3 0.290	1 0.349	0 0.092	4 0.380	2 0.099	3 0.166	6 0.217	Full of nature
1 0.030	6 0.099	0.119	9 0.158	3 0.220	6 0.137	8 0.236	8 0.564	2 0.436	4 0.633	5 0.096	5 0.523	0.180	2 0.315	6 0.214	6 0.425	2 0.223	5 0.252	9 0.402	9 0.399	7 0.244	3 0.391	5 0.257	0.184	0.283	2 0.240	7 0.447	6 0.434	8 0.246	2 0.434	7 0.255	0	1	0.560	2 0.122	5 0.496	0.177	9 0.386	0.257	0 0.295	9 0.339	2 0.090	0.390	0.099	6 0.169	7 0.211	Urban
0.017	99 0.032	0.076	58 0.156	20 0.216	0.225	36 0.278	94 0.616	36 0.384	33 0.615	96 0.097	23 0.507	0.193	0.307	0.242	25 0.406	23 0.240	52 0.237	0.422	0.382	14 0.252	0.373	57 0.276	0.174	33 0.301	10 0.218	17 0.468	34 0.414	16 0.254	34	55	0.228	0 0.382	0.561	0.123	96 0.473	77 0.182	36 0.354	0.268	95 0.284	39 0.352	0.085	0.372	0.099	59 0.169	0.214	Cheerfal
17 0.047	32 0.091	76 0.118	56 0.186	16 0.242	25 0.153	78 0.163	16 0.524	84 0.476	15 0.636	97 0.097	07 0.530	93 0.175	07 0.316	42 0.204	06 0.432	40 0.214	37 0.262	22 0.383	82 0.403	52 0.236	73 0.407	76 0.245	74 0.185	01 0.276	18 0.246	68 0.427	14 0.453	54 0.228	0	-	28 0.233	82 0.362	61 0.560	23 0.125	73 0.497	82 0.170	54 0.395	68 0.247	84 0.296	52 0.331	85 0.089	72 0.410	0.106	69 0.180	14 0.215	Gloomy
																											153	128	0.	0 0:																Individualistic
0.025 0.	0.052 0.	0.116 0.	0.133 0.		0.138 0.	0.343 0.	0.607 0.	0.393 0.	0.621 0.			0.191 0.		0.235 0.	0.410 0.	0.242 0.	0.240 0.	0.427 0.	0.388 0.	0.256 0.	0.370 0.	0.276 0.	0.178 0.	0.300 0.	0.223 0.	0.479 0.	0	-	0.413 0.	0.277 0.	0.239 0.	0.386 0.	0.564 0.	0.117 0.	0.482 0.		0.361 0.	0.273 0.	0.294 0.	0.352 0.	0.088 0.	0.364 0.	0.092 0.	0.157 0.	0.208 0.	ie Conventional
0.039 0	0.082 0	0.127 0	0.175 0		0.178 0	0.117 0	0.523 0	0.477 0		0.097 0				0.201 0	0.433 0	0.210 0	0.263 0	0.377 0	0.399 0	0.232 0	0.408 0	0.240 0	0.184 0	0.275 0	0.246	0.420	1 0	0 0	0.445 0	0.244 0	0.229 0	0.360 0			0.496 0		0.398 0	0.241 0	0.296 0	0.330 0	0.087 0	0.421 0	0.112 0		0.214 0	al Friendly
0.026 0.061	0.049 0.116	0.091 0.135	0.135 0.178	0.245 0.234	0.158 0.141	0.295 0.135	0.587 0.579	0.413 0.421	0.621 0.642	0.097 0.0	0.507 0.539		0.306 0.323	0.234 0.196	0.411 0.438	0.238 0.208	0.241 0.265	0.418 0.378	0.386 0.407	0.250 0.235	0.372 0.418	0.273 0.2	0.174 0.192	0.297 0.268	0	_	0.416 0.457	0.257 0.226	0.416 0.451	0.273 0.239	0.233 0.235	0.382 0.364	0.563 0.562	0.119 0.127	0.480 0.506		0.361 0.406	0.267 0.243	0.290 0.298	0.350 0.331	0.088 0.096	0.373 0.411	0.097 0.104		0.210 0.222	Unfriendly

1	0.020	0.036	0.141	0.247	0.195	0.263	0.562	0.438	0.618	0.097	0.507	0.190	0.306	0.231	0.412	0.234	0.243	0.413	0.383	0.247	0.375	0.270	0	1	0.222	0.462	0.424	0.251	0.418	0.274	0.230	0.378	0.562	0.478	0.182	0.362	0.264	0.290	0.347	0.083	0.383	0.102	
1	0.056	0115	0.156	0.170	0.188	0.175	0.573	0.427	0.637	0.094	0.539	0.175	0.325	0.201	0.432	0.214	0.262	0.388	0.404	0.242	0.412	0.245	1	0	0.252	0.429	0.448	0.236	0.445	0.250	0.237	0.370	0.560	0.500	0.170	0.397	0.250	0.296	0.335	0.093	0.401	0.105	
1	0.022	8800	0.137	0.241	0.184	0.310	0.574	0.426	0.618	0.095	0.505	0.192	0.307	0.241	0.406	0.243	0.236	0.422	0.387	0.252	0	1	0.172	0.300	0.218	0.472	0.410	0.257	0.413	0.278	0.232	0.383	0.561	0.476	0.183	0.352	0.271	0.280	0.352	0.088	0.366	0.096	
020 0236	0.059	0.083	0.214	0.221	0.166	0.131	0.573	0.427	0.638	0.098	0.535	0.172	0.320	0.201	0.435	0.210	0.265	0.380	0.405	0.235	_	0	0.189	0.272	0.251	0.420	0.456	0.225	0.447	0.246	0.230	0.360	0.562	0.499	0.168	0.400	0.244	0.298	0.329	0.092	0.414	0.106	
1000 CAMI CAMI <t< td=""><td>0.036</td><td>0.068</td><td>0.153</td><td>0.203</td><td>0.180</td><td>0.269</td><td>0.595</td><td>0.405</td><td>0.624</td><td>0.096</td><td>0.517</td><td>0.186</td><td>0.313</td><td>0.228</td><td>0.415</td><td>0.233</td><td>0.245</td><td>0.412</td><td>0</td><td>1</td><td>0.384</td><td>0.268</td><td>0.181</td><td>0.292</td><td>0.230</td><td>0.459</td><td>0.421</td><td>0.252</td><td>0.423</td><td>0.270</td><td>0.234</td><td>0.379</td><td>0.122</td><td>0.484</td><td>0.179</td><td>0.368</td><td>0.264</td><td>0.289</td><td>0.347</td><td>0.090</td><td>0.377</td><td>0.097</td><td></td></t<>	0.036	0.068	0.153	0.203	0.180	0.269	0.595	0.405	0.624	0.096	0.517	0.186	0.313	0.228	0.415	0.233	0.245	0.412	0	1	0.384	0.268	0.181	0.292	0.230	0.459	0.421	0.252	0.423	0.270	0.234	0.379	0.122	0.484	0.179	0.368	0.264	0.289	0.347	0.090	0.377	0.097	
1.20 0.234 0.236	0.044	0.006	0.199	0.228	0.145	0.191	0.551	0.449	0.636	0.096	0.528	0.176	0.317	0.210	0.430	0.218	0.257	0.391	_	0	0.403	0.251	0.184	0.277	0.244	0.433	0.443	0.234	0.441	0.250	0.234	0.364	0.560	0.497	0.172	0.390	0.252	0.292	0.334	0.091	0.400	0.101	
0.234 0.236 <th< td=""><td>0.019</td><td>0.000</td><td>0.155</td><td>0.229</td><td>0.168</td><td>0.283</td><td>0.617</td><td>0.383</td><td>0.622</td><td>0.097</td><td>0.510</td><td>0.189</td><td>0.309</td><td>0.235</td><td>0.411</td><td>0.237</td><td>0</td><td>1</td><td>0.388</td><td>0.250</td><td>0.375</td><td>0.272</td><td>0.176</td><td>0.295</td><td>0.225</td><td>0.465</td><td>0.415</td><td>0.256</td><td>0.415</td><td>0.275</td><td>0.234</td><td>0.380</td><td>0.122</td><td>0.482</td><td>0.182</td><td>0.364</td><td>0.266</td><td>0.288</td><td>0.349</td><td>0.089</td><td>0.373</td><td>0.096</td><td>0.101</td></th<>	0.019	0.000	0.155	0.229	0.168	0.283	0.617	0.383	0.622	0.097	0.510	0.189	0.309	0.235	0.411	0.237	0	1	0.388	0.250	0.375	0.272	0.176	0.295	0.225	0.465	0.415	0.256	0.415	0.275	0.234	0.380	0.122	0.482	0.182	0.364	0.266	0.288	0.349	0.089	0.373	0.096	0.101
0.234 0.236 <th< td=""><td>0.057</td><td>0.078</td><td>0.189</td><td>0.234</td><td>0.156</td><td>0.149</td><td>0.510</td><td>0.490</td><td>0.636</td><td>0.097</td><td>0.531</td><td>0.173</td><td>0.315</td><td>0.199</td><td>0.435</td><td>0.212</td><td>1</td><td>0</td><td>0.403</td><td>0.235</td><td>0.412</td><td>0.240</td><td>0.188</td><td>0.275</td><td>0.249</td><td>0.423</td><td>0.457</td><td>0.226</td><td>0.448</td><td>0.244</td><td>0.231</td><td>0.361</td><td>0.561</td><td>0.497</td><td>0.170</td><td>0.398</td><td>0.245</td><td>0.300</td><td>0.328</td><td>0.088</td><td>0.417</td><td>0.109</td><td>0.100</td></th<>	0.057	0.078	0.189	0.234	0.156	0.149	0.510	0.490	0.636	0.097	0.531	0.173	0.315	0.199	0.435	0.212	1	0	0.403	0.235	0.412	0.240	0.188	0.275	0.249	0.423	0.457	0.226	0.448	0.244	0.231	0.361	0.561	0.497	0.170	0.398	0.245	0.300	0.328	0.088	0.417	0.109	0.100
0.236 0.236 <th< td=""><td>0.035</td><td>0.046</td><td>0.134</td><td>0.243</td><td>0.178</td><td>0.305</td><td>0.592</td><td>0.408</td><td>0.618</td><td>0.096</td><td>0.506</td><td>0.191</td><td>0.307</td><td>0.240</td><td>0</td><td>_</td><td>0.238</td><td>0.421</td><td>0.386</td><td>0.252</td><td>0.370</td><td>0.279</td><td>0.173</td><td>0.299</td><td>0.221</td><td>0.471</td><td>0.411</td><td>0.257</td><td>0.413</td><td>0.278</td><td>0.231</td><td>0.384</td><td>0.564</td><td>0.476</td><td>0.183</td><td>0.353</td><td></td><td>0.284</td><td>0.353</td><td>0.090</td><td>0.367</td><td>0.096</td><td>00110</td></th<>	0.035	0.046	0.134	0.243	0.178	0.305	0.592	0.408	0.618	0.096	0.506	0.191	0.307	0.240	0	_	0.238	0.421	0.386	0.252	0.370	0.279	0.173	0.299	0.221	0.471	0.411	0.257	0.413	0.278	0.231	0.384	0.564	0.476	0.183	0.353		0.284	0.353	0.090	0.367	0.096	00110
0.238 0.248 0.248 0.246 0.246 0.246 0.246 0.248 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.333</td><td>0.089</td><td>0.408</td><td>0.105</td><td>01110</td></th<>																																							0.333	0.089	0.408	0.105	01110
0.250 0.255 0.255 0.259 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>5</td><td>7</td><td>0.40</td><td>0.24</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.356</td><td>0.089</td><td>0.362</td><td>0.093</td><td>0.40</td></th<>													5	7	0.40	0.24																							0.356	0.089	0.362	0.093	0.40
10.005 0.025 0.025 0.025 0.026 0.025 0.0													0	1																									6 0.337	9 0.092	2 0.396	3 0.102	0.174
0.293 0.294 0.295 0.284 0.295 0.286 0.295 0.286 0.295 0.296 0.295 0.295 0.295 0.295 0.295 0.295 0.295 0.295 0.295 0.295 0.295 0.295 0.295 0.295 0.295 0.240 0.240 0.995 0.297 0.186 0.285 0.286 0.286 0.286 0.285 0.184 0.184 0.186 0.285 0.144 0.186 0.285 0.286 0.285 0.286 0.285 0.286 0.287 0.286 0.141 0.125 0.126 0.026 0.287 0.286 0.141 0.125 0.286 0.287 0.286 0.127 0.286 0.128 0.287 0.286 0.128 0.287 0.287 0.287 0.289 0.188 0.287 0.281 0.287 0.281 0.287 0.281 0.287 0.281 0.287 0.281 0.287 0.281 0.289 0.281 0.287 0.281 0.2											30	78	1 0.3	0 0.2																				Γ					37 0.349	92 0.085	96 0.379	0.101	0,100
0.258 0.259 0.250 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Γ</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>											0	1																						Γ									
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0.300 0.238 0.278 0.238 0.279 0.238 0.400 0.250 0.238 0.363 0.238 0.219 0.238 0.197 0.238 0.239 0.236 0.234 0.434 0.436 0.138 0.139 0.233 0.146 0.138 0.141 0.138 0.148 0.439 0.241 0.412 0.426 0.534 0.436 0.148 0.439 0.241 0.428 0.544 0.438 0.449 0.432 0.438 0.439 0.447 0.300 0.327 0.239 0.344 0.423 0.239 0.447 0.300 0.327 0.239 0.344 0.423 0.239 0.342 0.388 0.446 0.427 0.349 0.424 0.239 0.342 0.389 0.432 0.432 0.349 0.427 0.248 0.349 0.429 0.422 0.432 0.434 0.442 0.348 <									0	-																													0.335	0.084	0.404	0.103	01113
0.238 0.278 0.238 0.279 0.288 0.400 0.238 0.238 0.239 0.239 0.249 0.249 0.249 0.0238 0.238 0.249 0.248 0.197 0.248 0.197 0.0375 0.238 0.146 0.143 0.432 0.246 0.199 0.139 0.241 0.422 0.432 0.432 0.242 0.234 0.0377 0.447 0.330 0.372 0.240 0.234 0.0230 0.342 0.339 0.232 0.239 0.249 0.0241 0.349 0.439 0.242 0.234 0.0241 0.349 0.439 0.242 0.234 0.0242 0.349 0.439 0.242 0.234 0.0243 0.039 0.149 0.049 0.049 0.049 0.0244 0.343 0.349 0.042 0.249 0.249 0.0449 0.049 0.049 0.049 0.049	0.037	0.085	0.184	0.248	0.150	0.191	0.567	0.433	_	0	0.524	0.178	0.315	0.213	0.427	0.219	0.255	0.394	0.399	0.239	0.398	0.252	0.182	0.280	0.241	0.437	0.442	0.235	0.437	0.253	0.233	0.367	0.561	0.495	0.173	0.388	0.252	0.293	0.336	0.090	0.399	0.102	0110
0.278 0.278 0.279 0.288 0.400 0.236 0.238 0.219 0.228 0.40 0.236 0.238 0.219 0.228 0.419 0.223 0.236 0.237 0.443 0.546 0.223 0.236 0.239 0.516 0.529 0.441 0.412 0.412 0.144 0.022 0.447 0.309 0.372 0.200 0.234 0.340 0.329 0.237 0.200 0.234 0.340 0.329 0.422 0.237 0.590 0.340 0.329 0.422 0.237 0.590 0.341 0.349 0.422 0.594 0.421 0.430 0.422 0.594 0.421 0.432 0.323 0.324 0.431 0.230 0.248 0.344 0.432 0.343 0.300 0.249 0.349 0.433 0.343 0.320 0.249 0.349	0.035	0.070	0.170	0.251	0.166	0.205	0	_	0.629	0.098	0.516	0.175	0.301	0.180	0.441	0.210	0.285	0.352	0.409	0.226	0.387	0.252	0.177	0.288	0.230	0.423	0.483	0.217	0.474	0.229	0.233	0.335	0.543	0.488	0.169	0.388	0.250	0.300	0.306	0.058	0.449	0.132	0.130
0.238 0.279 0.288 0.460 0.238 0.219 0.238 0.197 0.238 0.219 0.238 0.197 0.238 0.144 0.043 0.246 0.136 0.143 0.246 0.186 0.141 0.128 0.144 0.188 0.141 0.128 0.241 0.022 0.141 0.122 0.242 0.244 0.357 0.238 0.252 0.243 0.244 0.339 0.222 0.227 0.249 0.344 0.439 0.432 0.352 0.344 0.349 0.421 0.432 0.322 0.234 0.272 0.421 0.432 0.332 0.344 0.207 0.248 0.421 0.432 0.237 0.234 0.237 0.234 0.234 0.230 0.248 0.247 0.248 0.234 0.230 0.247 0.248 0.234 0.237	0.035	0.070	0.170	0.251	0.166	0.205	1	0	0.629	0.096	0.522	0.186	0.321	0.246	0.410	0.233	0.227	0.433	0.383	0.253	0.397	0.260	0.182	0.283	0.241	0.458	0.404	0.255	0.399	0.281	0.230	0.397	0.133	0.491	0.180	0.375	0.258	0.286	0.365	0.112	0.355	0.080	0.1.30
0.279 0.288 0.460 0.219 0.238 0.167 0.234 0.187 0.248 0.197 0.237 0.144 0.046 0.186 0.1218 0.124 0.193 0.523 0.125 0.124 0.124 0.124 0.572 0.236 0.234 0.272 0.0272 0.237 0.194 0.432 0.549 0.442 0.432 0.549 0.432 0.549 0.422 0.237 0.248 0.314 0.272 0.432 0.432 0.549 0.432 0.549 0.432 0.432 0.549 0.432 0.549 0.432 0.432 0.549 0.432 0.549 0.432 0.237 0.248 0.314 0.249 0.432 0.237 0.248 0.249 0.248 0.249 0.433 0.434 0.439 0.439 0.439 0.439 0.439 0.439 0.439	0 0	0 0	0	0	0	_	0.567	0.433	0.585	0.094	0.444	0.234	0.283	0.322	0.348	0.332	0.183	0.549	0.367	0.315	0.251	0.388	0.154	0.365	0.155	0.637	0.251	0.399	0.342	0.350	0.266	0.447	0.569	0.441	0.233	0.253	0.363	0.278	0.403	0.085	0.214	0.044	0.070
0.298 0.460 0.238 0.197 0.238 0.197 0.443 0.546 0.144 0.186 0.514 0.198 0.546 0.574 0.246 0.574 0.247 0.199 0.427 0.194 0.422 0.549 0.327 0.394 0.247 0.275 0.463 0.344 0.247 0.275 0.463 0.380 0.477 0.217 0.463 0.380 0.477 0.217 0.489 0.390 0.499 0.499 0.478 0.390 0.499 0.499 0.497 0.491 0.498 0.390 0.498 0.390 0.498 0.390 0.498 0.390 0.498 0.390 0.498 0.390 0.498 0.390 0.498 0.390 0.498 0.390 0.497 0.498 0.217 0.217 0.498 0.390 0.498 0.390 0.497 0.593 0.498 0.390 0.497 0.593 0.498 0.390 0.498 0.390 0.497 0.597 0.598 0.390 0.499 0.597 0.599 0.599 0.499 0.599 0.499 0.599	0 0	0 0	0	0	1	0			0.566									0.402									0.469												0.362	0.066	0.402	0.158	0.223
0.440 0.197 0.198 0.254 0.188 0.253 0.194 0.253 0.272 0.273 0.273 0.273 0.273 0.273 0.273 0.273 0.273 0.273 0.273 0.273 0.273 0.276 0.277 0.278	0	0	0	_	0	0		0.433			0.463		0.261				0.234	0.363	0.357		0.345								0.416	0.222							0.219		0.354	0.092	0.437	0.117	0.102
	0	0 0	-	0	0	0																																	0.259	0.075	0.473	0.084	0.230
0.233 0.0304 0.0304 0.0452 0.0452 0.0452 0.0509 0.3349 0.0453 0.0501 0.0130 0.0513 0.0501 0.0145 0.0176 0.0145 0.0201 0.0201 0.0201 0.0203	0	٥ .	- 0	0	0	0																																	0.297	0.050		0.148	0.240
0.333 0.124 0.539 0.124 0.656 0.0430 0.124 0.057 0.125 0.125 0.0483 0.0126 0.0483 0.0493 0.0162 0.0485 0.0485 0.0333 0.0499 0.0162 0.0485 0.0333 0.0499 0.0162 0.0485 0.0388 0.0388 0.0499 0.0409 0.0409 0.0409 0.0409	0	- 6	0	0	0	0	0.567	0.433	0.764	0.047	0.695	0.116	0.436	0.095	0.505	0.145	0.280	0.331	0.538	0.233	0.465	0.211	0.295			0.309	0.513	0.178	0.556	0.116	0.327	0.349	0.509			0.556	0.204	0.233	0.305	0.168	0.371	0.077	0.127

APPENDIX 3 Difference of probability

			Age					Gender																area at this shopping street	the surroundir																		visiting	The purpose		name_fuji
More than 70	40th	50th	40th	30th	20th	10th	Female	Male	Amosphere of rural area	Amosphere of urban	Calm	Lively	Want to examine deliberately	Want to play	Not fascinating	Fuscinating	Aloof	Warm	Do not want to reside	Want to reside	Exclusive	Open	Stimulated	Healed	ing Unfriendly	Friendly	Conventional	Indivi dual istic	Gloomy	Cheerfal	Urban	Full of nature	Historic	New	Feature les s	Varied	Scarcerod	Of the united feeling there is	Ugly	Beautiful	Leisure, amus ement	Celebration, event	Business	Bating and drinking	Shopping	state
0.035	0.070	0.102	0.170	0.251	0.166	0.205	0.567	0.433	0.629	0.097	0.520	0.181	0.312	0.218	0.423	0.223	0.252	0.398	0.395	0.241	0.393	0.257	0.180	0.285	0.236	0.443	0.438	0.238	0.432	0.259	0.231	0.370	0.561	0.124	0.490	0.175	0.381	0.255	0.292	0.339	0.089	0.396	0.103	0.174	0.215	Prior
0.033	0.008	-0.021	-0.002	-0.022	0.037	-0.033	0.068	-0.068	0.001	-0.002	0.010	-0.003	0.009	-0.001	0.001	-0.001	0.002	-0.005	0.002	0.002	0.014	-0.003	0.007	-0.006	0.008	-0.009	0.001	-0.007	0.002	0.000	-0.003	0.004	0.003	0.004	0.001	-0.005	0.000	-0.003	-0.005	0.003	0.009	-0.004	-0.001	-0.002	_	The purpose of visiting Shopping Eating and drinking
-0.016	-0.019	0.039	0.055	0.012	0.053	-0.123	-0.052	0.052	0.004	0.003	0.009	-0.006	0.002		0.012	-0.018	0.012	-0.023	0.002	-0.011	0.020	-0.021	0.002	-0.006	0.006	-0.030	0.033	-0.025	0.013	-0.008	-0.007	-0.020	-0.004	0.005	0.002	-0.008	0.018	-0.016	0.007	-0.015	-0.009	0.038	0.015	1	-0.004	of visiting Eating and drinking
-0.003	-0.018	0.045	-0.031	0.034	0.090	-0.117	-0.123	0.123	-0.003	0.000	0.007	-0.005	0.000	-0.020	0.007	-0.013	0.017	-0.028	-0.003	-0.010	0.011	-0.017	0.005	-0.003	0.005	-0.027	0.040	-0.025	0.014	-0.009	-0.008	-0.012	-0.005	0.000	-0.003	-0.008	0.011	-0.014	0.007	-0.012	-0.010	0.040		0.023	-0.006	Business
0.002	-0.004	0.035	0.033	0.026	0.002	-0.094	-0.059	0.059	0.006	0.002	0.008	-0.008	0.000	-0.018	0.013	-0.016	0.013	-0.023	0.005	-0.011	0.018	-0.019	0.003	-0.010	0.009	-0.026	0.028	-0.020	0.015	-0.015	-0.003	-0.015	-0.002	0.003	0.006	-0.007	0.019	-0.014	0.008	-0.013	-0.004	_	0.010	0.017	-0.003	Celebration, event
0.050	0.062	-0.044	-0.027	0.009	-0.043	-0.009	0.148	-0.148	0.014	-0.006	0.018	-0.008	0.018		0.005	0.000	-0.001	-0.003	0.011	0.005	0.014	-0.001	0.013	-0.018	0.021	-0.008	-0.006	-0.001	0.004	-0.010	0.004	0.011	0.009	0.004	0.014	-0.004	0.009	-0.002	-0.006	0.006	_	-0.022	-0.012	-0.020	0.019	Leisure, amus ement
-0.001	-0.007	-0.013	-0.040	0.011	0.011	0.038	0.043	-0.043	-0.005	-0.001	-0.006	0.005	-0.002	0.011	-0.008	0.009	-0.008	0.012	-0.006	0.005	-0.011	0.010	-0.002	0.006	-0.006	0.014	-0.012	0.008	-0.011	0.009	0.000	0.010	0.002	-0.001	-0.006	0.004	-0.012	0.006	G		0.002	-0.015	-0.003	-0.007		The image of Beautiful
0.004	-0.014	0.058	0.004	-0.011	-0.030	-0.010	-0.011	0.011	0.003	0.002	100.0	-0.003	-0.002		0.006	-0.006	0.007	-0.005	0.000	-0.002	0.008	-0.010	0.003	-0.002	0.005	-0.003	0.007	0.002	0.006	-0.006	0.002	-0.003	0.002	-0.001	0.004	0.001	110.0	-0.004			-0.003	110.0	0.002	0.004	-0.004	Ugby Ugby
-0.005	-0.014	-0.023	-0.011	-0.036	0.002	0.087	0.008	-0.008	-0.007	0.000	-0.009	0.007	-0.003		-0.011	0.014	-0.009	0.018	-0.004	0.009	-0.016	0.017	-0.004	0.010	-0.011	0.022	-0.023	0.017	-0.012	0.014	0.002	0.009	0.000	-0.003	800.0-	0.006	,		-0.004	0.008	-0.001	-0.022	-0.006	-0.011	-0.002	The image of the surrounding area at this shopping street Of the united feeling there is Scattered
0.002	0.032	0.044	0.028	-0.004	-0.033	-0.069	-0.009	0.009	0.012	0.000	0.014	-0.009	0.005	-0.020	0.014	-0.016	0.012	-0.017	0.010	-0.008	0.020	-0.019	0.008	-0.014	0.016	-0.022	0.020	-0.012	0.016	-0.018	0.004	-0.011	-0.001	0.003	0.014	-0.006	1	0	0.009	-0.011	0.001	0.020	0.003	0.009	-0.001	Scattered Scattered
-0.010	-0.022	0.006	-0.030	0.007	-0.018	0.068	0.016	-0.016	-0.006	0.000	-0.012	0.007	-0.007		-0.008	0.010	-0.008	0.015	-0.008	0.006	-0.017	0.011	-0.005	0.010	-0.010	0.021	-0.016	0.015	-0.012	0.010	0.002	0.009	0.002	-0.004		1	-0.013	0.009	0.001	0.008	-0.002	-0.015	-0.004	-0.008	-0.005	Varied
0.003	0.023	0.013	0.009	-0.004	-0.024	-0.020	0.002	-0.002	0.006	0.000	0.007	-0.004	0.003	-0.008	0.006	-0.006	0.004	-0.006	0.006	-0.002	0.008	-0.007	0.004	-0.007	0.008	-0.008	0.006	-0.004	0.007	-0.009	0.003	-0.003	0.000	100.0	1	0	110.0	-0.004	0.003	-0.004	0.002	0.005	0.000	0.001	0.000	Featureless
0.000	0.010	-0.013	0.042	0.002	0.023	-0.064	0.052	-0.052	0.004	0.000	0.008	-0.004	0.005	-0.003	0.004	-0.007	0.002	-0.007	0.003	-0.004	0.013	-0.008	0.002	-0.008	0.006	-0.016	0.008	-0.012	0.003	-0.003	-0.004	-0.006	0	1	0.004	-0.006	0.008	-0.007	-0.003	-0.004	0.003	0.008	0.001	0.007	0.008	New
0.006	-0.007	0.002	-0.005	0.007	-0.007	0.003	0.014	-0.014	-0.001	0.000	-0.001	0.000	-0.001	100.0	-0.001	0.001	0.000	0.001	-0.001	0.000	0.000	0.000	-0.001	0.000	0.000	0.002	-0.001	100.0	-0.001	0.000	-0.001	0.002	1	0	0.000	100.0	-0.001	0.000	0.001	0.001	0.001	-0.001	-0.001	-0.001	0.001	Historic
0.006	-0.004	-0.004	-0.051	0.001	0.009	0.043	0.041	-0.041	-0.005	-0.002	-0.004	0.005	-0.001	0.009	-0.007	0.009	-0.007	0.011	-0.006	0.006	-0.010	0.009	0.000	0.006	-0.004	0.014	-0.012	0.010	-0.009	0.008	0	1	0.003	-0.002	-0.005	0.004	-0.011	0.006	-0.002	0.010	0.003	-0.016	-0.003	-0.008	0.002	Full of nature
-0.005	0.029	0.018	-0.012	-0.031	-0.029	0.030	-0.004	0.004	0.004	-0.001	0.004	-0.001	0.003	-0.004	0.002	0.000	0.000	0.004	0.005	0.003	-0.001	0.001	0.005	-0.002	0.004	0.004	-0.004	0.007	0.003	-0.003	-	0	-0.001	-0.002	0.006	0.001	0.006	0.002	0.003	0.000	0.001	-0.006	-0.003	-0.005	-0.003	Urbun
-0.018	-0.039	-0.025	-0.014	-0.036	0.059	0.073	0.049	-0.049	-0.014	0.001	-0.013	0.012	-0.005	0.024	-0.017	0.017	-0.015	0.025	-0.013	110.0	-0.020	0.020	-0.006	0.017	-0.018	0.025	-0.024	0.016	0	-	-0.003	0.012	0.000	-0.001	-0.017	0.007	-0.027	0.013	-0.008	0.012	-0.003	-0.023	-0.004	-0.005	0.000	Cheeful
0.012	0.020	0.016	0.016	-0.009	-0.013	-0.043	-0.043	0.043	0.007	0.000	0.010	-0.007	0.004	-0.014	0.009	-0.009	0.010	-0.014	0.009	-0.005	0.014	-0.011	0.006	-0.009	0.010	-0.016	0.014	-0.010	_	0	0.001	-0.008	-0.002	0.001	0.008	-0.005	0.014	-0.008	0.004	-0.008	0.000	0.014	0.004	0.006	0.000	Gloomy
-0.010		0.014	-0.037	-0.060	-0.028	0.138	0.040	-0.040							-0.013										-0.013			_		0.018										0.013			-0.010		-0.007	Individualistic
0.004			0.005		0.012	-0.088	-0.044	0.044						-0.017			0.011		0.005			-0.017		-0.010				0		-0.014	-0.002									-0.009					-0.001	Conventional
-0.009	-0.021	-0.011	-0.035	-0.006	-0.008	0.090	0.020	-0.020	-0.008	0.000	-0.013	0.008	-0.006	0.016	-0.012	0.015	-0.011	0.020	-0.008	0.009	-0.021	0.017	-0.006	0.012	0	_	-0.023	0.019	-0.016	0.015	0.002	0.012	0.002	-0.004	-0.009	0.008	-0.019	0.013	-0.002	0.011	-0.001	-0.022	-0.006	-0.011	-0.004	Friendly
0.026	0.045	0.034	0.008	-0.017	-0.025	-0.071	0.012	-0.012	0.013	-0.001	0.019	-0.011	0.010	-0.022	0.015	-0.015	0.013	-0.019	0.013	-0.006	0.025	-0.019	0.012	-0.017	_	0	0.019	-0.012	0.019	-0.020	0.004	-0.006	0.001	0.003	0.016	-0.007	0.026	-0.012	0.006	-0.008	0.007	0.016	0.002	0.004	0.007	Unfriendly

																																														Hoaled
-0.015	-0.034	-0.004	-0.029	-0.004	0.028	0.058	-0.005	0.005	-0.011	0.001	-0.013	0.009	-0.007	0.014	-0.011	0.011	-0.008	0.015	-0.011	0.006	-0.018	0.013	0	_	-0.014	0.020	-0.014	0.013	-0.014	0.016	-0.002	0.008	0.000	-0.003	-0.012	0.006	810.0-	0.009	-0.001	0.008	-0.005	-0.012	0.000	-0.003	-0.005	Stimulated
0.021	0.045	0.039	-0.014	-0.082	0.022	-0.030	0.006	-0.006	0.008	-0.002	0.019	-0.006	0.013	-0.017	0.009	-0.009	0.010	-0.010	0.010	0.001	0.019	-0.011	_	0	0.016	-0.014	0.010	-0.003	0.014	-0.009	0.006	0.000	-0.002	0.001	0.011	-0.005	0.016	-0.005	0.005	-0.004	0.005	0.005	0.002	0.001	0.008	alated O,
-0.013	-0.012	-0.054	-0.033	-0.010	0.018	0.105	0.007	-0.007	-0.011	-0.001	-0.014	0.011	-0.005	0.024	-0.017	0.020	-0.016	0.024	-0.008	0.011	0	_	-0.008	0.015	-0.018	0.029	-0.028	0.018	-0.019	0.020	0.001	0.013	0.000	-0.004	-0.013	0.008	-0.028	0.017	-0.011	0.013	-0.001	-0.030	-0.007	-0.014	-0.003	caled Stimulated Open Exclusive
0.024	0.013	0.025	0.044	-0.031	0.000	-0.074	0.006	-0.006	0.009	0.001	0.015	-0.009	0.008	-0.017	0.012	-0.013	0.013	-0.018	0.010	-0.006			0.009	-0.013	0.015	-0.023	0.017	-0.014	0.015	-0.013	-0.001	-0.010	0.000	0.004	0.010	-0.007	0.019	-0.010	0.006	-0.010	0.003	0.019	0.003	0.009	0.007	Exclusive
0.001	3 -0.002	-0.010	-0.017	-0.049		0.063	6 0.028	6 -0.028		-0.001	-0.003	0.005	8 0.001	7 0.010	-0.008	0.010	-0.007	8 0.015	0	5	-0.009	0.012	0.001	0.007	-0.006	0.016		0.014	-0.009	3 0.012	0.003	0.009	0.000	-0.002	-0.005	7 0.004	9 -0.012	0.010	-0.003	0.007	0.001	-0.019	-0.005	-0.009	7 0.001	Want to reside
																			0	-																										Do not want to reside
0.009	0.026	-0.004	0.029	-0.024				0.016		0.000	0.009	-0.005	0.005	-0.008	0.006	-0.005	0.005	-0.007	1	0	0.010	-0.005	0.004	-0.008	0.008	-0.010		-0.005	0.009	-0.008			-0.001	0.001	0.007	-0.003	0.010	-0.003	0.000	-0.006	0.002	0.004	-0.001	0.000	0.001	tto Warm
0.017	-0.012	-0.014	-0.015	-0.022	0.002	0.078	0.050	-0.050	-0.007	0.000	-0.009	800.0	-0.003	0.018	-0.012	0.013	0	_	-0.006	0.009	-0.018	0.016	-0.004	0.010	-0.012	0.022	-0.023	0.017	-0.016	0.016	0.002	0.010	1000	-0.002	800.0-	0.007	-0.017	0.012	-0.004	0.010	0.000	-0.023	-0.007	-0.010	-0.003	Aloof
0.022	800.0	0.036	0.018	-0.018	-0.010	-0.056	-0.057	0.057	0.007	100.0	110.0	-0.008	0.003	-0.019	0.012	-0.011	1	0	0.008	-0.006	0.020	-0.016	0.008	-0.010	0.012	-0.020	0.019	-0.012	0.017	-0.015	0.000	-0.009	-0.001	0.001	800.0	-0.006	0.017	-0.010	0.009	-0.011	100.0-	0.021	0.007	0.009	0.001	Fasc
-0.001	-0.024	-0.042	-0.036	-0.009	0.011	0.100	0.025	-0.025	110.0-	-0.001	-0.014	0.010	-0.005	0.022	0	_	-0.014	0.023	-0.009	0.011	-0.023	0.022	-0.007	0.014	-0.016	0.029	-0.028	0.018	-0.019	0.019	0.000	0.014	0.002	-0.004	-0.013	0.008	-0.027	0.015	-0.008	0.013	1000	-0.029	-0.007	-0.014	-0.001	Fascinating N
0.005	0.014	0.019	0.020	-0.004	-0.017	-0.037	-0.018	0.018	0.006	0.000	0.007	-0.005	0.003	-0.011	1	0	0.007	-0.010	0.006	-0.004	110.0	-0.010	0.004	-0.007	800.0	-0.013	0.011	-0.007	0.010	-0.010	0.001	-0.007	-0.001	0.001	0.007	-0.003	0.013	-0.006	0.004	-0.007	0.000	0.012	0.002	0.005	0.000	Not fascinating
-0.021	-0.040	-0.068	-0.008	0.016	0.023	0.099	0.074	-0.074	-0.014	0.000	-0.020	0.014		_	-0.023	0.025	-0.023	0.032	-0.013	0.012	-0.030	0.028	-0.013	0.016	-0.024	0.033	-0.035	0.017	-0.030	0.028	-0.004	0.015	0.002	-0.001	-0.019	0.009	-0.035	0.017	-0.014	0.016	0.000	-0.034	-0.009	-0.012	-0.002	Want to play
0.009	0.028	-0.001	0.009	-0.042		-0.019		-0.016		-0.001	0.011	-0.003			0.004	-0.004	0.003	-0.004		0.001	0.010	-0.004	0.007	-0.006	800.0	-0.009	0.003	-0.003	0.006	-0.003	0.002	-0.001	-0.002	0.002	0.005	-0.004	0.007	-0.002	-0.002	-0.002	0.004	0.000	0.000	0.000	0.006	examine dath-autoda
											=	33	-	0 0																																Lively
0.018		-0.013	-0.035	0.001		0.060	0.014	-0.014		0.000	0	_	-0.006	0.016	-0.012		-0.011	0.018			-0.020	0.015	-0.006	0.014	-0.014	0.021		0.013	-0.016	0.017			0.000	-0.003	-0.012	0.006	-0.020	0.010	-0.004	0.010	-0.004	-0.016	-0.002	-0.005	-0.004	Calm
0.009	0.024	0.008	0.012	-0.028	0.005	-0.030	0.003	-0.003	0.005	-0.001	_	0	0.006	-0.009	0.006	-0.006	0.005	-0.007	0.007	-0.001	0.012	-0.007	0.007	-0.007	0.009	-0.011	0.007	-0.006	0.008	-0.007	0.002	-0.003	-0.001	0.002	0.006	-0.004	0.010	-0.004	0.001	-0.004	0.003	0.006	0.001	0.002	0.004	Atmos
-0.004	-0.036	0.016	0.048	0.000	-0.019	-0.005	-0.006	0.006	0	_	-0.004	0.000	-0.005	0.001	0.002	-0.002	0.002	-0.001	-0.001	-0.002	0.003	-0.004	-0.004	0.002	-0.003	-0.001	0.000	0.000	0.000	0.001	-0.003	-0.006	0.001	0.000	-0.002	0.001	0.001	0.000	0.006	-0.004	-0.004	0.008	0.000	0.005	-0.004	Atmosphere of Atri
0.002	0.015	0.005	0.013	-0.004	-0.017	-0.014	0.000	0.000	_	0	0.005	-0.003	0.002	-0.005	0.004	-0.004	0.003	-0.004	0.005	-0.002	0.006	-0.004	0.002	-0.005	0.005	-0.006	0.004	-0.003	0.005	-0.006	0.002	-0.003	-0.001	0.001	0.005	-0.002	0.007	-0.003	0.001	-0.003	0.001	0.004	-0.001	0.001	0.000	Atmosphere of M
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	_	0.000	0.001	-0.004	-0.006	-0.012	-0.037	0.018	-0.013	0.033	-0.046	0.015	-0.016	-0.005	-0.004	-0.003	0.003	-0.006	-0.020	0.044	-0.022	0.043	-0.029	0.002	-0.035	-0.018	-0.015	-0.002	-0.007	0.008	-0.005	0.008	-0.034	-0.030	0.054	0.029	0.021	-0.034	Male
0.000	0.000	0.000	0.000	0.000	0.000	0.000			0.000	-0.001	0.003	0.004	0.009	0.028	-0.014	0.010	-0.025	0.035	-0.011	0.012	0.004	0.003	0.002	-0.002	0.005	0.015	-0.034	0.017	-0.033	0.022	100.0-	0.027	0.014	0.011	0.002	0.005	-0.006	0.004	-0.006	0.026	0.023	-0.041	-0.022	-0.016	0.026	Female
0	0	0	0	0	0	0	0.000	0.000	١.	1 -0.002	3 -0.076	4 0.053	9 -0.029	8 0.105	4 -0.075	0 0.108	5 -0.069	5 0.151	-0.028	2 0.074	4 -0.142	3 0.132	2 -0.026	2 0.080	5 -0.081	5 0.195	4 -0.188	7 0.160	3 -0.090	2 0.092	1 0.034	7 0.077	4 0.007	1 -0.039	2 -0.049	5 0.058	6 -0.127	4 0.108	6 -0.014	6 0.064	3 -0.004	1 -0.182	2 -0.059	6 -0.104	6 -0.035	10th
0	0	0	0	0	0	_	0.000	0.000	4 -0.063	2 -0.011	6 0.016	3 0.034	9 0.031	5 0.030	5 -0.042	8 0.015	-0.015	0.004	8 -0.051	0.020	2 -0.001	2 0.027	6 0.024	0.049	-0.036	5 -0.022	8 0.031	-0.040	0 -0.033	2 0.092	-0.041	7 0.020	-0.024	9 0.017	9 -0.070	8 -0.019	7 -0.076	8 0.003	4 -0.053	0.022	-0.023	2 0.006	9 0.055	0.055	5 0.048	20th
0	0	0	0	0	_	0	0.000	0.000	-0.009	0.000	6 -0.057	0.000	-0.052	0.014	-0.008	-0.008	-0.018	-0.035	-0.037	-0.047	-0.048	-0.010	-0.058	-0.005	-0.016	2 -0.011	0.051	-0.057	-0.016	2 -0.037	-0.029	0.002	0.017	7 0.001	-0.007	9 0.005	-0.007	-0.036	-0.013	0.015	0.003		0.014	5 0.008	-0.019	30th
0	0	0	0	-	0	0	0.000	0.000	0.050	00 0.028	57 0.036	00 -0.037	52 0.016	-0.011	0.049	08 -0.047	18 0.027	35 -0.035	37 0.068	47 -0.024	48 0.101	10 -0.050	58 -0.015	05 -0.048	16 0.012	-0.091	51 0.014	57 -0.052	16 0.041	37 -0.021	29 -0.016	02 -0.110	-0.015	0.031	07 0.026	05 -0.031	0.062	36 -0.017	13 0.007	-0.080	03 -0.014	0.078	14 -0.019	0.056	19 -0.003	40th
0	0	0	-	0	0	0	0.000	0.000	50 0.028	28 0.015		37 -0.024	16 -0.004	-0.146		47 -0.092	0.088	35 -0.055	68 -0.015	24 -0.024	0.096	50 -0.137	15 0.068	48 -0.010	12 0.078	91 -0.048	0.110	52 0.033		21 -0.064		10 -0.016		31 -0.015		0.011	62 0.165	-0.058	0.168	80 -0.042	14 -0.038				03 -0.044	50th
0	0	_	0	0	0	0					0.040 0.				0.080 0.0														0.068 0.				0.013 -0.0		0.062 0.							0.135 -0.0	0.045 -0.0	0.066 -0.0		60th
0	-	0	0	0	0	0	0.000 0.	0.000 0.	0.135 0.	-0.049 -0.	0.175 0.	-0.065 -0.	0.124 0.	-0.123 -0.	0.082 0.	-0.078 -0.	0.028 0.	-0.067 -0.	0.144 0.	-0.008 0.	0.073 0.	-0.046 -0.	0.115 0.	-0.139 -0.	0.153 0.	-0.134 -0.	0.074 0.	-0.060 -0.	0.125 0.	-0.142 -0.	0.096 -0.	-0.021 0.	-0.052 0.	0.018 0.	0.161 0.	-0.055 -0.	0.176 0.	-0.051 -0.	-0.059 0.	-0.034 -0.	0.079 0.	-0.025 0.	-0.026 -0.	-0.047 -0.	0.025 0.	More than 70
-	0	0	0	0	0	0	0.000	0.000	0.027	-0.011	0.137	-0.095	0.076	-0.132	0.061	-0.003	0.157	-0.188	0.100	0.006	0.264	-0.095	0.105	-0.123	0.173	-0.110	0.046	-0.067	0.149	0.135	-0.032	0.060	0.095	0.000	0.043	-0.052	810.0	-0.035	0.031	-0.006	0.127	0.023	-0.008	-0.079	0.204	8