

## A study of Willingness to Pay and Willingness to work for Morizum

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### Background and Purpose of the Study

According to the concept of "Morizum" the healing effect of greenery can be felt in daily life in simple ways. The term refers to anything or activity that makes us feel close to nature in daily life.

Morizum can improve "quality of green life" of people who are concerned about environmental conservation and preservation. Because young people tend not to feel interested in complex activities, it can also encourage young people's participation in green activities still decreases.

There are many different types of Morizum, and various ways to pay for it. This study has two main objectives that to analyze the potential economic value of Morizum and to analyze how people prioritize spending on Morizum-related things. Through this study, we have tried, first, to investigate the degree of people's awareness of and interest in Morizum, and second, their willingness to pay (WTP) and willingness to work (WTW) for Morizum and the scope of improvement of Morizum's economic value.

### Methods

For the purpose of this study, which focuses on young people between the ages of 10 and 30, a questionnaire was used to gain an understanding of their participation awareness and personal attributes. After being shown 24 pictures depicting Morizum-related activities, the participants were presented with 20 statements and asked to score the degree of agreement to each statement on a 6-point Likert-type scale. We used the Kruskal-Wallis, Steel-Dwass, and X2 tests to perform statistical analysis using SPSS software. The Kruskal-Wallis test was used to analyze the data for significant difference, the Steel-Dwass test (ST) for a cross-sectional study, and the X2 test to determine the cause of significant difference.

### Results

We collected 310 questionnaires, but only 254 met the criteria for analysis.

First, the result of the relationship between young people's personal attributes and participation awareness shows that the women have a higher percentage of health, relax, living environment and growing vegetables than men's on participation awareness. Meanwhile, men's consciousness is higher than women's on cost, meaningless, lack of information, and a few events. People who owned apartments or condominiums showed negative attitudes towards the concept of Morizum, and high-annual-income groups could not spare much time to participate. Therefore, personal attributes based on gender, residence, and annual income partly influence participation awareness where Morizum is concerned.

Second, we found that while the participants tended to give negative responses to questions related to time, cost, safety and cleanliness, largely, they responded positively to questions related to education and

entertainment, and to simple activities that require little space and energy.

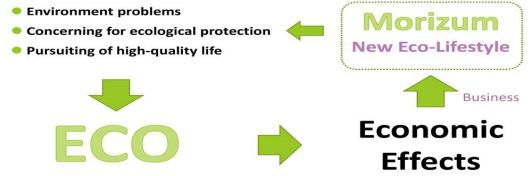
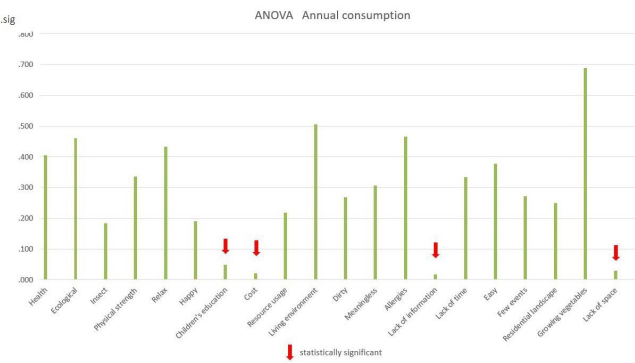
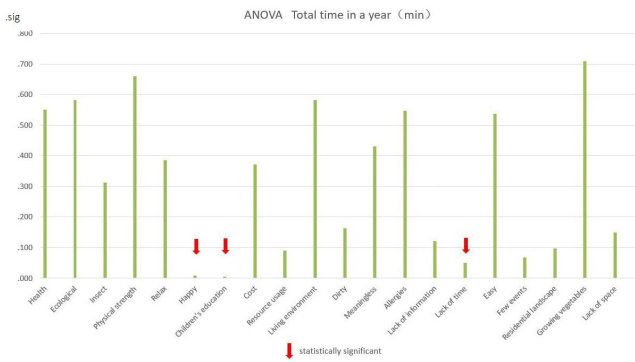
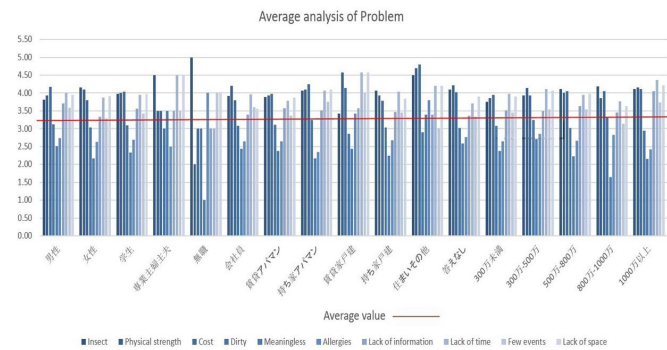
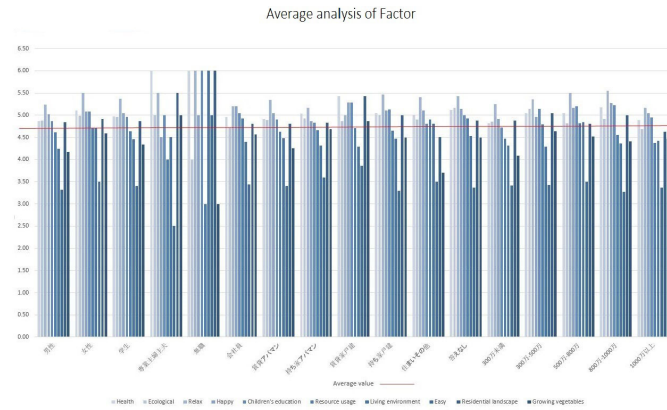
Last, the analysis of the relationship between personal attributes and WTP/WTW demonstrates that the average of WTP is 145,880 yen, and that of WTW is 2.5 days (61.5 h). The most important factor affecting people's WTP is age. Consequently, the older the person, the lower the WTP. WTW, however, is unaffected by age.

### **Conclusion**

In conclusion, citizens' personal attributes partly influence WTW and WTP. To improve young people's participation awareness, we need to develop more relaxing and educational Morizum events and create more work that is both time- and cost-effective and that also takes safety and cleanliness into consideration. As part of future research, we intend to clarify the specific activities that can help exploit Morizum's economic value.

Keywords: Morizum, Willingness to work, Willingness to pay, Economic value, Green lifestyle

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		非常に感じる	やや感じる	あまり感じない	感じない	全く感じない
1	健康増進に役立つ	6	5	4	3	2
2	生物、植物の生息環境づくりに役立つ	6	5	4	3	2
3	苦手な虫がくる	6	5	4	3	2
4	体力が必要	6	5	4	3	2
5	リフレッシュ、リラクセスできる	6	5	4	3	2
6	楽しそう	6	5	4	3	2
7	子どもの環境学習と遊び場づくりに役立つ	6	5	4	3	2
8	費用が気になる	6	5	4	3	2
9	森林資源の有効活用	6	5	4	3	2
10	住環境の向上	6	5	4	3	2
11	泥で汚れたり、けがすることが心配だ	6	5	4	3	2
12	意義を感じない	6	5	4	3	2
13	アレルギーが心配	6	5	4	3	2
14	情報の調べ方が分からない、知りたい情報が見つからない	6	5	4	3	2
15	時間が取れない、続けられなさそう	6	5	4	3	2
16	専門技術が無くても簡単な作業で手入れが継続できる	6	5	4	3	2
17	積極的に参加したくなるような活動が少ない	6	5	4	3	2
18	自宅やまらの景観が美しくなる	6	5	4	3	2
19	自宅で食材の栽培ができそう	6	5	4	3	2
20	実践できる場所や空間がない	6	5	4	3	2

	Rotated Component Matrix <sup>a</sup>						
	Component						
	1	2	3	4	5	6	7
Health	.631	-.012	.017	.139	-.019	-.116	-.158
Ecology	.446	.053	-.050	.433	-.201	-.064	-.239
Insect pest	.043	-.193	-.015	.732	-.166	-.060	-.193
Physical	.053	.111	.115	.171	-.011	.003	.840
Take breaks	.746	-.072	-.069	-.032	.022	-.046	-.051
Happiness	.626	-.422	.051	-.135	-.038	.196	-.026
Children's paradise	.741	-.117	.103	-.170	.038	.031	-.109
Cost	.074	.100	.743	-.053	-.016	.257	.196
Resource	.403	-.119	.439	.165	-.012	-.414	-.121
Living environment	.482	-.017	.334	.186	.320	-.114	-.158
Worry about dirt	-.073	-.040	.300	.728	-.061	.038	.067
Meaningless	-.065	-.055	.338	.166	-.584	.355	-.227
Worry about allergies	-.086	.069	.576	.273	.007	-.139	.000
Lack of information	-.010	.668	.340	-.142	-.086	.031	.050
Deficiency of time	-.027	.713	-.047	.090	-.094	.230	-.243
Simplicity of	-.043	-.245	.210	.024	.694	.062	-.157
Less participation	-.154	.719	.021	.178	-.030	.063	-.097
Residential landscape	.575	-.265	-.197	.076	.389	-.009	-.199
Food	.362	-.061	-.153	.139	.466	.195	.192
No field	-.028	.310	.062	.081	.021	.807	-.003

Principal Component