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Research Article

Demographics and Awareness of Pag-Ibig Fund's E-Government Service Among Private Employees in the Philippines

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ABSTRACT

E-government is gaining prominence, and more research is being conducted on the topic. This study aims to find out how familiar people are with e-government services, why they use or don't use them, and if there is a significant link between demographics and client awareness of e-governance Pag-IBIG Fund offers. A survey using Google forms was carried out to obtain the necessary information on the individuals working for Mang Inasal in Nueva Vizcaya. The study analyzed 191 replies to discover the characteristics that influenced their awareness and use of Pag-IBIG Fund's e-government services. Contrary to what has always been assumed, 71.2% of the respondents are aware of the E-Government services offered by Pag-IBIG Fund - this number shows a formidable familiarity among the people of Mang Inasal in Nueva Vizcaya. Using Spearman's Correlation and analysis, it also indicated that there is no significant relationship between age ($p=.247$), educational degree ($p=.391$), and Income ($p=.113$) over the awareness of the E-Government Services offered by Pag-IBIG Fund. These insights should be helpful to academics, professionals, and decision-makers.

Keywords: Awareness, E-Government, Pag-IBIG Fund, Philippines, Private Employees

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Introduction

One of the most significant harvests is an electronic government (e-government). E-government is the application of information and communication technology to various aspects of the government's daily operations. Its goal is to "improve access to and delivery of government services for the benefit of citizens. This is accomplished by improving the flow of information between the government and citizens, resulting in a new way for both parties to interact. International ICT Benchmarks attest to the Philippine government's overall capacity to improve citizen access to government services and boost bureaucratic productivity. The ASEAN e-readiness survey, a similar project, categorizes ASEAN nations into four levels of e-development: emerging, evolving, embedding, and extending. Regarding e-government readiness, the Philippines is currently in the early stages. According to the World Market Research Center and the Brown University Survey, e-government practices worldwide fall short of their true potential. Because of incoherent economic, social, and political infrastructure among nations, the internet's interactive capabilities are underutilized (e-Government in the Philippines, 2016)

In the Philippines, initiatives to incorporate e-government as a significant growth lever began more than 20 years ago. Innovative E-Government projects and programs have been developed over time to enhance the delivery of public services. However, the lack of a top-level organization explicitly established to govern and supervise ICT policies and initiatives hindered the continuation of changes. Every change in administration in the past has led to a change in the office responsible for directing the implementation of e-government. It is a troubling issue for both the government and academe, especially given that funding support for e-government is entrenched in the national budget (Republic Act, 2020)

As a result, The Department of Information and Communications Technology (DICT) was established by law in 2016. Following the law, the DICT shall be the main policy, planning, and administrative body for advancing the country's ICT development goal. Its mission is to

create a comprehensive framework for maximizing all ICT networks and resources used by the government to prioritize e-government applications and systems (*Republic Act No. 10844 / DICT, 2020*). In line with this, the Philippines can now shift from non-integrated and agency-specific apps to an E-Government model characterized by data exchange and interoperability among government agencies to provide residents with more cost-effective public services (Department of Finance, 2018).

In 2018, the President of the Philippines - President Rodrigo Roa Duterte, called for a government service that is responsive to the needs of the public by harnessing technology (*Duterte Admin Tapping ICT to Make It More Responsive, Accountable to People, 2018*). In response, one of the government-owned and controlled corporations, the Home Development Mutual Fund (Pag-IBIG Fund), launched an online portal that makes its services available to members 24/7 in December 2019. According to Sec. Del Rosario, who heads both the Department of Human Settlements and Urban Development (DHSUD) at the time, and the 11-member Pag-IBIG Fund Board of Trustees - The Virtual Pag-IBIG has been a long-term project of the Fund. Before launching, they made sure that the support systems had been prepared and that the security of the database had been put in place (*Virtual Pag-IBIG Launched to Provide Online Service 24/7, 2019*). An individual can obtain a Pag-IBIG Membership ID (MID) number, enroll for an MP2 Funds account, apply for a Multi-Purpose (MPL) or Calamity loan, access their savings, and manage their loan records online by creating an account in the Virtual Pag-IBIG (Pag-IBIG Fund Cash Loan Application Now Online, Execs Say, 2020).

Despite having the most active population of social media users and the fastest-growing information technology and business process outsourcing sector, Aineena Hani of OpenGovAsia claims that the Philippines is struggling with an internet problem stunting the country's overall economic expansion (*Hani, 2021*). This is relevant since the study indicates that some Mang Inasal workers in Nueva Vizcaya may not be familiar with the simplest forms of e-Government service. This is the situation, although the Pag-IBIG Fund has been the

main force in establishing even the most essential online government services. Some of them are not tech-savvy due to variables such as their age, level of education, or the location in which they reside (Pag-IBIG Virtual Pag-IBIG launched to provide online service, 2019).

E-government research has lagged in the Philippines compared to other parts of the world. Only a few studies, like those by Magno (2018), Bajar (2020), and probably others that were never published but are now tucked away in archives, have looked at e-government from a local perspective. To realize this pressing requirement, the study intends to examine the demographics and level of awareness of e-Government services specifically offered by Pag-IBIG Fund, particularly among the employees of Mang Inasal in Nueva Vizcaya since those workers are widely regarded as likely to profit from the Pag-IBIG Fund's efforts to establish electronic government services and initiatives (Magno, 2018).

Methods

Research Design. The researcher's method of choice in this study is quantitative. In this study, statistics played a crucial role as a tool for data analysis. However, the research's design must also be carefully considered. According to Muijs (2004: 1), quantitative research collects numerical data and analyzes such data using mathematically grounded procedures (in particular, statistics). This means that systematic investigations of phenomena and their relationships are conducted using quantitative research methods, which deal with numbers and anything that can be measured.

Moreover, the descriptive correlational research design is utilized. A survey research technique was employed. Population and Sampling The only basis for sampling theory is probability sampling, in which each individual is known and has a chance of being included (Wolf, Joye, Smith & Fu, 2016). Without using any intentional selection, randomization is used to choose the respondents (Wolf, Joye, Smith & Fu, 2016). The individuals currently working in Mang Inasal are the study's

intended audience. They need to be members of the Pag-IBIG Fund.

Respondents of the Study. The study's respondents include 191 employees from a private organization member of the Pag-IBIG Funds.

Research Instrument Questionnaire. To help private companies' employees learn more, a standardized questionnaire with questions and statements concerning demographics and awareness of Pag-IBIG Fund's E-Government Service among Private Employees in the Philippines is provided. This approach includes a few questions on awareness levels and how ideas work to provide each question with an alternate answer. An alternative response for this item's analysis may be strongly agree, agree, disagree, or strongly disagree. The standardized instrument was taken from E-Government Awareness and Adoption by the Residents: A Quantitative Analysis on North Cyprus. The original authors are Anil Eyupoglu and Tugberk Kaya. Since it is available on the internet, the researchers utilized it for the research and ensured that it is properly cited and included in the references.

Ethical Consideration. This study ensures that ethical criteria established by general research ethics are followed in compliance with the Data Privacy Act of 2012. As a result, the respondents were the data gathering items were stored and then destroyed.

Results and Discussion

The analysis and interpretation of the data gathered through the questionnaire checklist are presented in this section in relation to the particular issues of the study. The data were provided in the same order and succession as the problems in section 1 to maintain consistency in the discussion. The results were laid up in tabular form and discussed in the text.

Frequency and Percentage Distribution of the Respondents' Profile

The survey received 191 responses, and the general respondent profile is shown in Table I. The same table also shows the frequency distribution of some variables that are thought to have significant findings.

Table I. Respondents Profile

Variables	Options	Frequency	Percentage
Age	18-24	57	29.8
	25-29	78	40.8
	30-34	22	11.5
	35-39	19	9.9
	40-44	9	4.7
	45 and above	6	3.1
Educational Degree	Middle/High School/Senior	31	16.2
	College Undergraduate	60	31.4
	College Graduate	97	50.8
	Master's/PhD	3	1.6
Income	No Income	8	4.2
	Below Minimum Wage	24	12.6
	Minimum Wage	104	54.5

Frequency and Percentage Distribution of the Clientele respondents' awareness of Institutions E-Governments Services

According to Table 2, 71.2% of the respondents are aware of e-government services in Nueva Vizcaya. Each option is discussed in detail in the following sections.

Table 2. Awareness of e-Government services offered by Pag-IBIG Fund

Variables	Options	Frequency	Percentage
Awareness	Yes	136	71.2
	No	55	28.8

Awareness vs. Demographic Variables

Awareness by Age Group

Table 1 shows the awareness frequencies for different age groups. It can be shown that 74.36% of the population between the ages of 25 and 29 is informed. The population between

the 40-44 age group shows the most significant difference, where 88.89% are informed. The Chi-Square test of independence is used, and the result is not significant at $p > .05$. According to the calculations ($p = 0.165$), it can be said that the variables are independent.

Table 3. Awareness by age groups

Age	Aware		Not Aware	
	Freq	%	Freq	%
18-24	42	73.68	15	26.32
25-29	58	74.36	20	25.64
30-34	15	68.18	7	31.82
35-39	11	57.89	8	42.11
40-44	8	88.89	1	11.11
45 and above	2	33.33	4	66.67

Table 4. Awareness by age groups (Chi-Squared Test)

Observed values O	Expected values E	O-E	(O-E) ²	$\frac{(O-E)^2}{E}$
42	40.59	1.41	1.9881	0.04898
15	16.41	-1.41	1.9881	0.121152

Observed values O	Expected values E	O-E	(O-E) ²	$\frac{(O-E)^2}{E}$
58	55.54	2.46	6.0516	0.108959
20	22.46	-2.46	6.0516	0.269439
15	15.66	-0.66	0.4356	0.027816
7	6.34	0.66	0.4356	0.068707
11	13.53	-2.53	6.4009	0.473089
8	5.47	2.53	6.4009	1.170183
8	6.41	1.59	2.5281	0.394399
1	2.59	-1.59	2.5281	0.9761
2	4.27	-2.27	5.1529	1.206768
4	1.73	2.27	5.1529	2.978555
Chi-Square Score				7.844148

DF = 5 ; P-Value from Chi-Square Calculator =0.165

Awareness by Education

Table 4 shows the awareness frequencies for various educational backgrounds. It can be shown that 70.10% of those with the most common educational background (College Graduates) are aware of the e-government services offered by Pag-IBIG Fund. Following this are those who are College Undergraduates, who make up 73.33% of the population. The most

significant difference are people who are Middle/High School/Senior High School Graduates where 74.19 is aware. This can be reasonable because most of the employees of Mang Inasal are High School Graduates. The Chi-Square test of independence is used, and the results are not significant at $p>.05$. Based on the calculations ($p=0.485$), the result is not significant. Therefore, the variables are independent.

Table 5. Awareness by Education

Educational Background	Aware		Not Aware	
	Freq	%	Freq	%
Middle/High School/Senior High School	23	74.19	8	25.81
College Undergraduate	44	73.33	16	26.67
College Graduate	68	70.10	29	29.90
Master's/PhD	1	33.33	2	66.67

Table 6. Awareness by Education (Chi-Squared Test)

Observe values O	Expected values E	O-E	(O-E) ²	$\frac{(O-E)^2}{E}$
23	22.07	0.93	0.8649	0.039189
8	8.93	-0.93	0.8649	0.096853
44	42.72	1.28	1.6384	0.038352
16	17.28	-1.28	1.6384	0.094815
68	69.07	-1.07	1.1449	0.016576
29	27.93	1.07	1.1449	0.040992
1	2.14	-1.14	1.2996	0.60729
2	0.86	1.14	1.2996	1.511163
Chi-Square Score				2.445229

Awareness by Income Range

Table V shows the awareness frequencies for various income levels. 72.12% are informed for the most common income bracket (Minimum Wage). The income level with the most significant difference is 76.36% for Above

Minimum Wage Earners. According to calculations ($p=0.333$), the Chi-Square test of independence is used, and the outcome is not significant at $p>.05$. It can be stated that variables are independent.

Table 7. Awareness by income range

Income Range	Aware		Not Aware	
	Freq	%	Freq	Freq
No Income	4	50	4	50
Below Minimum Wage	15	62.5	9	37.5
Minimum Wage	75	72.12	29	27.88
Above Minimum Wage	42	76.36	13	23.64

Table 8. Awareness by income range (Chi-Squared Test)

Observe values O	Expected values E	O-E	(O-E) ²	$\frac{(O-E)^2}{E}$
4	5.7	-1.7	2.89	0.507018
4	2.3	1.7	2.89	1.256522
15	17.09	-2.09	4.3681	0.255594
9	6.91	2.09	4.3681	0.632142
75	74.05	0.95	0.9025	0.012188
29	29.95	-0.95	0.9025	0.030134
42	39.16	2.84	8.0656	0.205965
13	15.84	-2.84	8.0656	0.509192
Chi-Square Score				3.408753

Awareness vs. Usage

Results for awareness and utilization are displayed in Table VI. It is evident that 91.18%

of the respondents who were aware of e-government services offered by the Pag-IBIG Fund had actually used it.

Table 9. Awareness and usage results

Variables	Options	Frequency	Percentage
Aware & Used	Yes	124	91.18
	No	12	8.82

Service-based questions are posed to respondents who have heard of and utilized e-government services offered by the Pag-IBIG Fund, which is considered one of the survey's most important questions. Four (4) of the e-government services offered by the Pag-IBIG Fund are initially listed. These services have been made public and are now in use. This list with the usage frequency is displayed in Figure 1. The Online Application for membership which has 49.19% of active usage, is the most

used e-government service. This outcome was anticipated because all applicants for Mang Inasal were required to complete their requirements before starting their job. The online application of loans (housing loans, multipurpose loans, calamity loans) is next, with 33.87% utilization. After viewing the member's record with 33.06% utilization, online payment is the least used e-government service (membership savings and loan repayments).

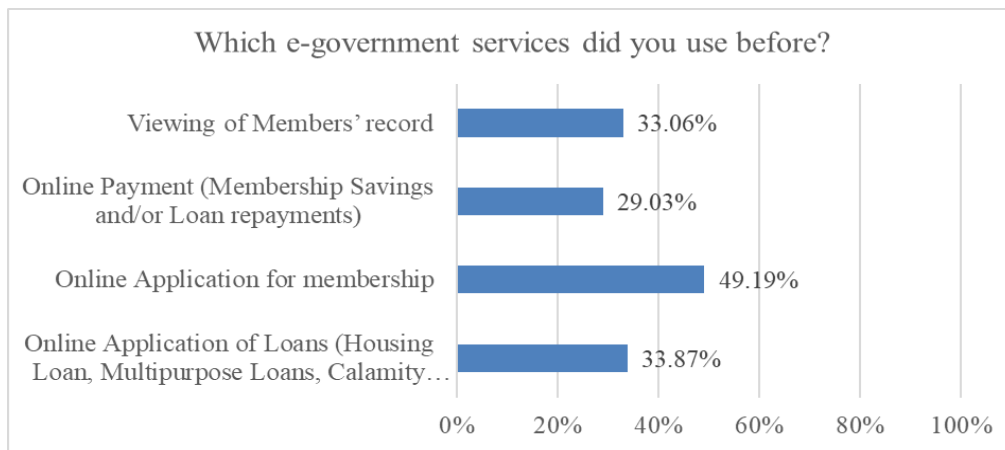


Figure 1. List of e-government services provided in the survey and frequency of people

Table VII shows that 72.58% of users do so because they find it “helpful” and “time-saving.” This is a good result demonstrating that

e-government works in Mang Inasal, which aligns with its actual implementation goals. Table 7 displays the complete findings.

Table 10. Reasons for using e-government services of Pag-IBIG Fund

Statement	Frequency	Percentage
I don't have time to visit Pag-IBIG Fund Office	81	65.32
I find it useful and time saving in paying my monthly contribution	90	72.58
I don't have any other option	11	8.87
I don't know any other way to access services	11	8.87
It is part of my company processes in paying employees contribution I have to use it due to my work responsibility	72	58.06
It takes longer to carry out some tasks in physical	30	24.19

The trustworthiness statement emphasizes that 61.29% of users trust the services they are using. Additionally, respondents said they have confidence in the service provider. Moreover,

30.65% of users also stated that despite not trusting e-government services, they continue to utilize them because they make their lives easier.

Table 11. Trust-related statements

Statement	Frequency	Percentage
I trust the service & service provider	76	61.29%
I don't trust but still use it as it make my life easier	38	30.65%
I don't trust but still use it because I don't have any other option	10	8.06%

In terms of recommendations, the majority of current users (66.13%) stated that they prefer to continue to utilize e-government services in the future. A generic question with several statements was posed at the end of this survey section. The choices ranged from strongly disagree to strongly agree. A review of the findings is as follows:

- 45.16% of active users strongly agreed that services are generally easy to use.
- 45% of active users agree that e-government services offered by the Pag-IBIG Fund are simple to understand.
- Regarding whether the information they receive is clear and sufficient, 47.58% agreed, and 8.87% disagreed.

- When asked about the system's service disruption, 41.94% strongly agreed that overall services can still work properly.
- 38.71% of the users agreed that the language was straightforward and made them feel at ease utilizing the system.
- 46.77% of active users agreed they could successfully execute their planned operation.
- Nearly 63.71% of the active would tell their friends and family about e-government services

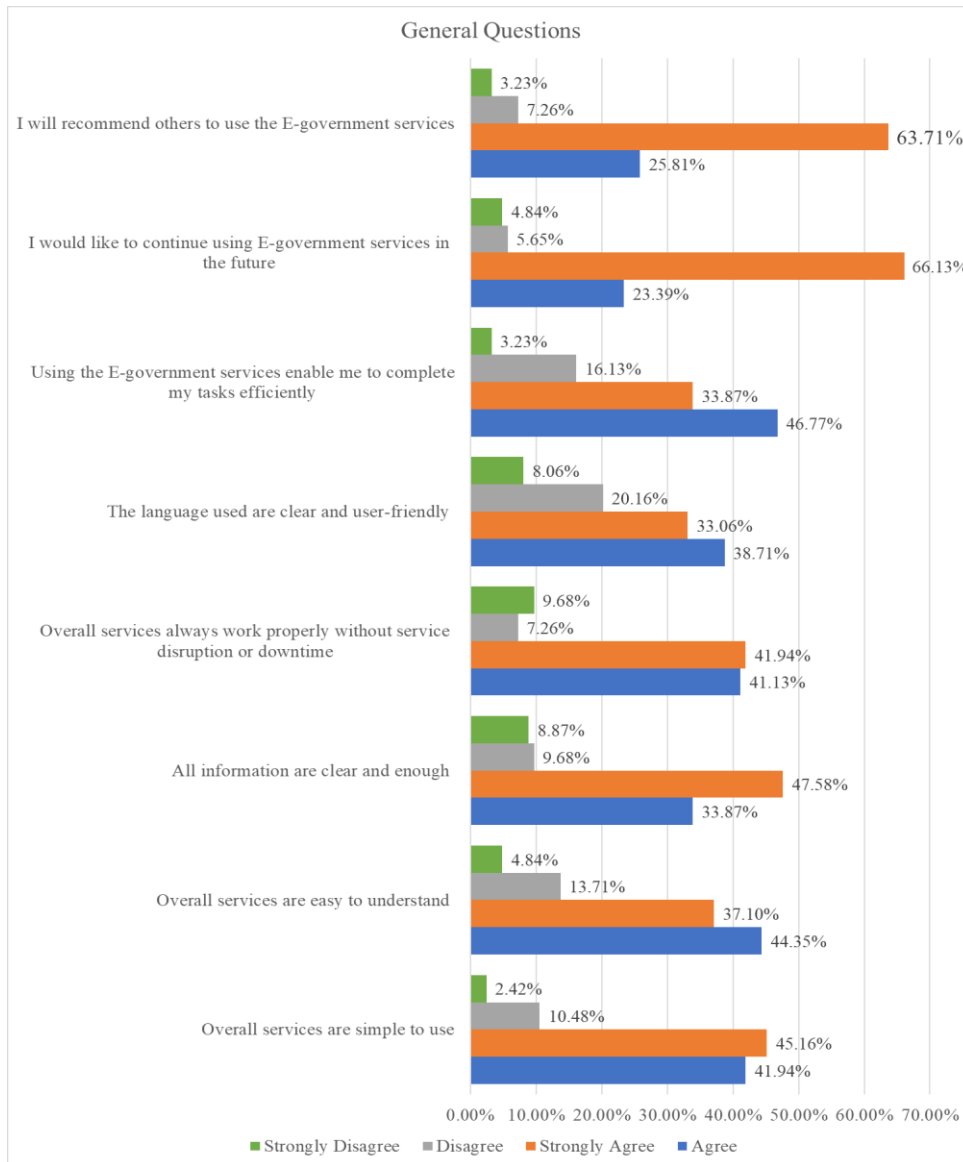


Figure 2. General Questions

A generic inquiry with numerous statements was posed to those who had never used the e-government services offered by the Pag-IBIG Fund. The options ranged from strongly disagree to strongly agree. All of the outcomes are presented in this section with a heavy emphasis on the negative. Simply put, it seems

that the majority of respondents did not strongly agree with the remarks expressed. As a result, no conclusions are drawn from this bit of information because it is deemed insufficient. Some of the findings are displayed in Figure 3.

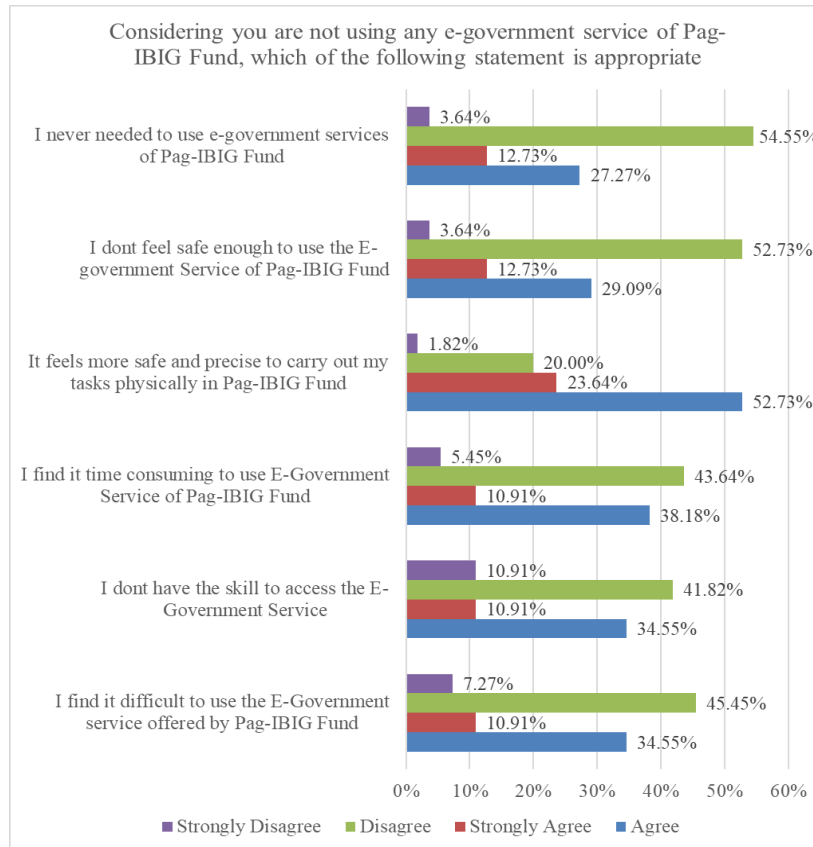


Figure 3. Part of the statements regarding people who haven't used e-government services offered by the Pag-IBIG Fund

Test of significance between Demographic Variables and Level of Awareness

Spearman’s correlation analysis was used to identify the correlation between the

demographic variables of the respondents and their awareness of the e-government services offered by the Pag-IBIG Fund. The results of the analysis are reported in Table IX.

Table 12. Spearman’s correlation and analysis

		Awareness	
Spearman’s rho	Age	Correlation Coefficient	.084
		Sig. (2-tailed)	.247
		N	191
	Educational Degree	Correlation Coefficient	.062
		Sig. (2-tailed)	.391
		N	191
Income	Correlation Coefficient	-.115	
	Sig. (2-tailed)	.113	
	N	191	

Awareness by age

Table XII shows that Sig. (2-tailed) = .247. This value is higher than 0.05, indicating no significant relationship between the age of the respondents and their awareness of

e-government services offered by the Pag-IBIG Fund. Spearman’s rho (r) was found to be 0.084. The value is “between 0 and 0.5, indicating a weak relationship or no relationship”.

Awareness by educational degree

According to Table XII, Sig. (2-tailed) = .391. Given that this number is more than 0.05, it is clear that there is no connection between respondent's educational degree and their knowledge of the Pag-IBIG Fund's e-government services. The calculated Spearman's rho (r) value was 0.062. A weak or nonexistent relationship is indicated by the value "between 0 and 0.5."

Awareness by income

Table XII shows that Sig. (2-tailed) = .113. Given that this number is more than 0.05, it is clear that there is no significant relationship between the respondents' income and their awareness of the e-government services offered by the Pag-IBIG Fund. The calculated Spearman's rho (p) value was -.115, indicating that the relationship is weak or there is no correlation between awareness and income.

Summary of Findings

Based on the summary of findings, the following are enumerated:

1. Demographic Profile of the Respondents

The majority of the respondents are between the ages of 25-29. In terms of educational degrees, the majority of the respondents are college graduates. It is also observed that the majority of the respondents are minimum-wage earners.

2. Clientele respondents' awareness of the Institution's E-Government Services

The majority of the respondents are aware of the e-government services offered by the Pag-IBIG Fund.

3. Usage of E-Government Services

The majority of the respondents who were aware of the e-government services of the Pag-IBIG Fund had actually used it.

4. Different E-Government Services provided by the Pag-IBIG Fund

Most of the respondents who were aware of and used the e-government services provided by the Pag-IBIG Fund had used it for the membership application. The next was the online application for loans (housing loans, multipurpose loans, calamity loans), followed by viewing the member's record. The least used e-government

service is online payment (membership savings and loan repayments.)

5. Reasons for using E-government Services of Pag-IBIG Fund

Majority of the respondents used the e-government services of Pag-IBIG Fund because they found it "helpful" and "time saving."

6. Result for the level of trust of the respondents

The respondents trust the e-government services that they are using and the service provider. In addition, other users claimed that even if they don't trust e-government services, they still use them because they make their lives easier.

7. Reasons for not using E-government Services

Respondents who haven't used e-government services offered by the Pag-IBIG Fund did not strongly agree with the statements provided in the survey.

8. Result of the significant relationship between demographics and clientele awareness

Spearman's correlation analysis showed no significant relationship between demographics and clientele awareness.

Conclusion

This study indicated that Pag-IBIG members had improved awareness of the e-Government services of the Pag-Ibig Fund. Also investigated is the relationship between demographic variables and awareness. Active members appear to have confidence in the service and service provider. The same factor applies to the uninformed individuals who claimed they would have confidence in the service if they were aware of it. It was surprising that some people unknowingly employ e-government strategies. Adoption of e-government strategies by distribution decision-makers can increase awareness and utilization. Positive indicator: users perceive e-government operations as useful and time-saving. It is suggested that to increase its popularity; e-Government is advocated more as a theoretical than an ideological adaptation.

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