

# Research into the use of Artificial Intelligence “Robo” Advice platforms in Thailand

<sup>1</sup>Andrew Sydenham, <sup>2</sup>Dr J A Simcox

<sup>1</sup>BA, MBA (candidate), St Mary’s University, London, England

<sup>2</sup>D.Phil, L.L.M., BA, ACMA, DipM. MCIM, Academic Director Asia, Mountbatten Institute Bangkok and St Mary’s University, London, England

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**Abstract:** This paper outlines research that was undertaken in Thailand in the Spring of 2019 into the factors that influence the use of automated wealth platforms (described in this paper as “Robo” Advice platforms). The research was a quantitative methods study undertaken by the use of a questionnaire, analysed with the aid of SPSS. The inferential statistical analysis determined the key factors that influence the use of “Robo” Advice platforms and statistically significant differences in perception based upon nationality, gender, and age.

**Keywords:** Automated wealth platforms, “Robo” Advice platforms, AI, Artificial intelligence, Thailand research.

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## I. INTRODUCTION

In the world of wealth management “Robo” Advice platforms are a relatively new technology and so far the use of the technology by customers is limited (only 25% of respondents within this piece of research were users). “Robo” Advice platforms are online services that provide automated portfolios based upon customer preferences. They weigh personal preferences against unpredictable forces to automatically recommend a portfolio that fits an investor’s needs.[1].

As it has been predicted that the number of affluent individuals is set to more than double in the next five years globally it is now an appropriate time to explore the factors that encourage and discourage the use of this technology [2]

The research, which was carried out in Thailand in the Spring of 2019, looked at both Thai and foreign retail bank clients in an attempt to assess their usage of “Robo” Advice platforms.

A detailed survey was completed by 137 customers. They responded regarding their perceptions of the quality of advice received, how easy “Robo” Advice platforms were to use, how much trust they had in “Robo” Advice platforms, and how useful they found “Robo” Advice platforms [3].

Analysis of the data gathered (see below), using stepwise multiple linear regression, Mann-Whitney-U test, and Kruskal-Wallis H testing, determined that there was a correlation between these factors and the level of use of “Robo” Advice platforms and differences in attitude by nationality, gender, and age.

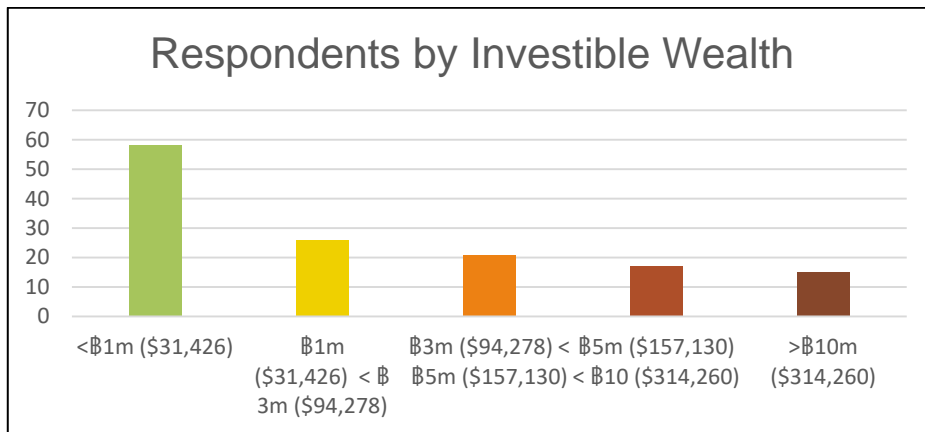
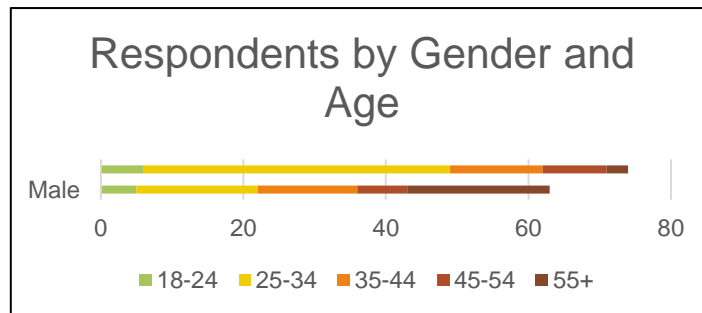
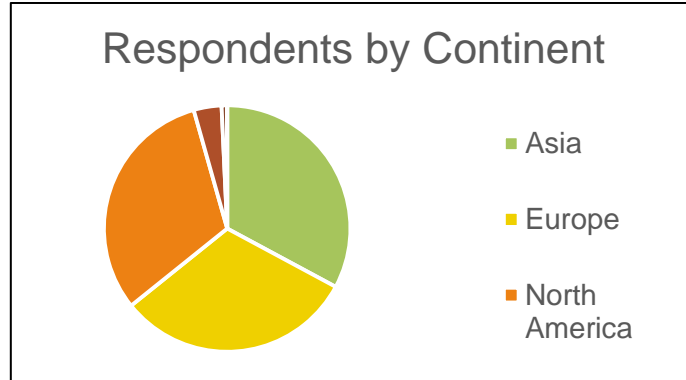
Multiple stepwise linear regression indicated that ease of use and customers’ perceived usefulness were the two key factors that explained why customers use “Robo” Advice platforms and with an adjusted r square of .378 can be estimated to explain 37.8% of the reason why “Robo” Advice platforms are used.

A Kruskal-Wallis H test was used to see if there was a significant difference in the attitudes of the different wealth categories, there was not. However, there was a difference in the levels of trust by age band.

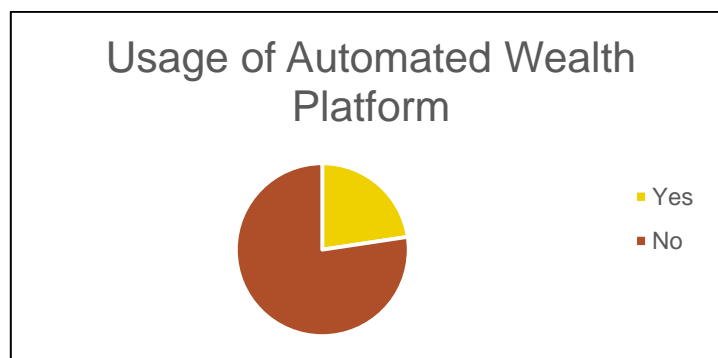
Additional analysis determined that Thai customers, and higher wealth customers had a higher level of awareness of automated wealth platforms. Gender analysis determined a difference in the perception of ease of use of “Robo” Advice platforms with Males finding them easier to use.

## II. DETAILED ANALYSIS

Of the 137 surveys gathered the respondents birth places corresponded to Asia (33%), Europe (31%), and North America (31%), with 23% being Thai-nationals and 73% foreign Thai residents.[4].A Cronbach’s alpha test was undertaken to test scale reliability at .812 (>0.7) indicated good reliability [5].



### Use of “Robo” Advice platforms



**Awareness of “Robo” Advice platforms**

<b>Awareness</b>		
<b>Gender</b>	<b>Aware</b>	<b>Unaware</b>
Male	59%	41%
Female	58%	42%
<b>Affluence</b>	<b>Aware</b>	<b>Unaware</b>
<฿1m (\$31,426)	52%	48%
฿1m (\$31,426) < ฿3m (\$94,278)	35%	65%
฿3m (\$94,278) < ฿5m (\$157,130)	43%	57%
฿5m (\$157,130) < ฿10 (\$314,260)	71%	29%
>฿10m (\$314,260)	47%	53%
<b>Nationality</b>	<b>Aware</b>	<b>Unaware</b>
Asia	58%	42%
Europe	51%	49%
North America	40%	60%
South America	60%	40%
Oceania	0%	100%
<b>Age</b>	<b>Aware</b>	<b>Unaware</b>
18-24	55%	45%
25-34	50%	50%
35-44	30%	70%
45-54	75%	25%
55+	52%	48%
<b>Domestic</b>	<b>Aware</b>	<b>Unaware</b>
Thai	52%	48%
Non-Thai	49%	51%

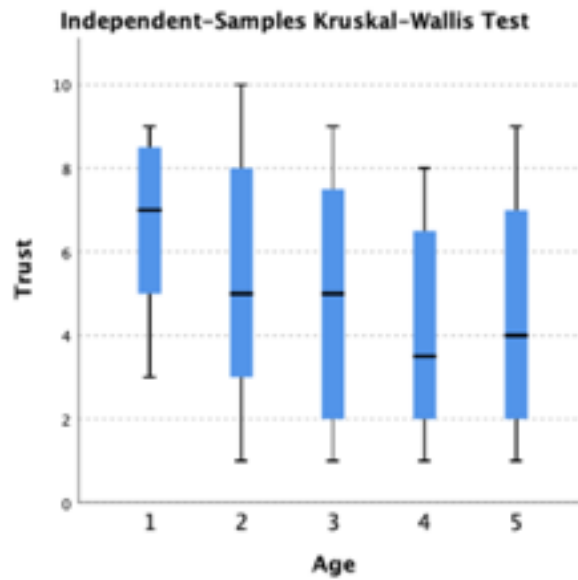
Inferential statistical analysis was undertaken using SPSS and determined the following. [6].

A multiple stepwise linear regression analysis indicated that ease of use and customers perceived usefulness were the two key factors that explained why customers use “Robo” Advice platforms and with an adjusted r square of .191 can be estimated to explain 19.1 % of the reason why “Robo” Advice platforms are used.

A Kruskal-Wallis H test was used to see if there was a significant difference in the attitudes of the different wealth categories, there was not, however there was a difference in the levels of trust by age band.[7].

	<b>Null Hypothesis</b>	<b>Test</b>	<b>Sig.</b>	<b>Decision</b>
1	The distribution of Trust is the same across categories of Cat: Age.	Independent-Samples Kruskal-Wallis Test	.045	Reject the null hypothesis.
2	The distribution of Ease is the same across categories of Cat: Age.	Independent-Samples Kruskal-Wallis Test	.195	Retain the null hypothesis.
3	The distribution of Quality is the same across categories of Cat:Age.	Independent-Samples Kruskal-Wallis Test	.231	Retain the null hypothesis.
4	The distribution of Useful is the same across categories of Cat: Age.	Independent-Samples Kruskal-Wallis Test	.217	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .050.



18-24 year olds (1 above) placing more trust in “Robo” Advice platforms

Additionally gender analysis determined a difference in the perception of ease of use of “Robo” Advice platforms with males finding them easier to use.

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Trust is the same across categories of Cat: Gender.	Independent-Samples Mann-Whitney U Test	.823	Retain the null hypothesis.
2	The distribution of Ease is the same across categories of Cat: Gender.	Independent-Samples Mann-Whitney U Test	.001	Reject the null hypothesis.
3	The distribution of Quality is the same across categories of Cat: Gender.	Independent-Samples Mann-Whitney U Test	.831	Retain the null hypothesis.
4	The distribution of Useful is the same across categories of Cat: Gender.	Independent-Samples Mann-Whitney U Test	.537	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .050.

Thai bank customers perceive “Robo” Advice platforms to be both less useful and providing a low quality of advice.

**Nonparametric Tests**

**Hypothesis Test Summary**

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Trust is the same across categories of Cat: ThaiBank.	Independent-Samples Mann-Whitney U Test	.114	Retain the null hypothesis.
2	The distribution of Ease is the same across categories of Cat: ThaiBank.	Independent-Samples Mann-Whitney U Test	.154	Retain the null hypothesis.
3	The distribution of Quality is the same across categories of Cat: ThaiBank.	Independent-Samples Mann-Whitney U Test	.026	Reject the null hypothesis.
4	The distribution of Useful is the same across categories of Cat: ThaiBank.	Independent-Samples Mann-Whitney U Test	.004	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .050.

Amongst existent users of “Robo” Advice platforms as opposed to non-users, and amongst respondents from different continents there was a significant difference in perceptions.

<b>Hypothesis Test Summary</b>				
	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Trust is the same across categories of Cat: Usage.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
2	The distribution of Ease is the same across categories of Cat: Usage.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
3	The distribution of Quality is the same across categories of Cat: Usage.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.
4	The distribution of Useful is the same across categories of Cat: Usage.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .050.

### III. CONCLUSIONS

This research determined that ease of use and usefulness are the key factors that will encourage the uptake of “Robo” Advice platforms and these are the attributes that Wealth Advisors should promote. The research also determined significant differences by age, gender, and nationality to enable Wealth Advisors to consider a segmented approach to these different market segments.

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