

The role of Perceived Behavioural Control as mediator on financial incentives towards saving in a voluntary retirement fund

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Abstract

The purpose of the mediation analysis is to investigate how perceived behavioural control mediates the relationship between the cash and tax incentives towards the intention to save in a voluntary retirement fund. A quantitative approach was adopted analysing 384 responses collected through a nationwide multistage proportionate cluster sampling. A nonparametric sampling procedure using bootstrapping following the Preacher and Hayes technique in mediating analysis were employed. The specific indirect effect from the bootstrapping result concluded that tax incentives influence the saving intention via perceived behavioural control, in contrast to cash incentives which is not significant. Predicting a person's intention to save in a voluntary retirement fund is an important issue, and the findings of this study would have practical implications on policymakers and commercial marketers alike, as it would help to encourage retirement savings through voluntary funds to prevent financial insufficiency in the golden age.

Keywords: Voluntary Retirement Fund, Social Security, Retirement savings, Financial Incentives.

Introduction

Since its inception in 2010 and 2012, the voluntary private retirement saving programs have not been successful in Malaysia, despite the incentives such as tax deductions on contributions and a potential higher return than the provident fund. In June 2013, a year after its inauguration, the number of accounts created in the PRS, for example, was around 30,000. In the year 2014 budget, the government had proposed a one-off incentive to RM500 to contributors who participate in the PRS with a minimum cumulative investment of RM1,000 within a year. In October 2014, the number only rose to 100,000 accounts with a net asset value of RM299.82 Million since the introduction of incentives (<http://www.sc.com.my/>). In the 2017 an increment of the youth incentives up to RM1000 was made. The account holder of PRS tripled to 301,279 in 2017. After almost five years of operation, the net total asset value rose to from RM229.82 million in 2013 to RM2.23 billion in 2017 (<http://www.sc.com.my>, PPA). Much of the success comes from of the cash incentives provided by the PRS, the promotion and the concerted effort done by the 56 existing private fund organisations led by the PPA. However, this is pale in comparison to the Malaysian sole mandatory fund, the EPF annual contribution which rose by 6.38% in 2017 from the previous year which amounted to RM65.52 billion against a total withdrawal of RM49.40 billion. This result in a net inflow of RM16.12 billion, which increase the total investment assets of EPF to RM768.51 billion as at Dec 2017 (EPF).

One of the significant benefits of saving in a voluntary retirement fund is its financial incentives. Financial incentives are direct financial stimuli such as subsidy, tax concession or tax deferral available to purchase and to save in a retirement plan which encourage participation and

increase the level of contributions (Attanasio et al., 2013; Feng, 2018). In many countries, the existence of the financial incentives is an aspect that sets apart the voluntary retirement fund and other types of old age savings (Holzmann, 2000). Many authors attest to this indicating voluntary retirement fund rely heavily on the incentives [4]–[9]. The incentives theory suggest that human actions are often inspired to gain from external reinforcement or incentives. Most people will be pulled towards behaviours that offer positive incentives and pushed away from behaviours associated with negative incentives [10]. The differences in an individual's behaviour can be traced to the incentives available and the value a person places on those incentives at the time [11]. Financial incentives can be considered as a facilitating condition mechanism towards retirement saving. Many researchers attest to this and provide evidence of the existence of financial incentives in encouraging retirement saving in a private or voluntary scheme in almost every country of the world (Feng, 2018; , [7], [12]–[19]. Accordingly, the same intervention is conducted in Malaysia to promote voluntary saving for retirement.

In many instances the ability of rewards or incentives to modify behaviours is undeniable. It is stated that if people receive payments for certain behaviours, the expectation is that they are likely to engage in these desired behaviours [20]. Most economist and behaviourist believe in this view, but the cognitive psychologist views it differently [21]–[23]. Economists and behavioural scientist consider performance-based reward can stimulate cognitive effort, a psychologist on the other hands argue that imposing financial incentives will distract or crowd out intrinsic motivation. Psychologist often argues that intrinsic motivation is sufficient to the moved individual to act. However, the differences lie on how the model was integrated when psychologist usually concentrated on how financial incentives might crowd out intrinsic motivation, on the other hand, economist focus on the trade-off between effort and incentives [24]–[26]. Incentives are useful if it stimulates behavioural changes. However, limited research found a positive relationship between tax incentives and participation with many have a different view on the magnitude of the incentives effect. Thus, this study seeks to examine the mediating effect of perceived behavioural control on the financial incentives (tax incentives and cash incentives) towards the intention to save in a voluntary retirement fund.

Literature review

Incentives

Incentives are considered to be any concession, rebate, credit, subsidy or contribution the government makes, either directly or via an employer, towards an individual's retirement income saving [27]. The financial incentives encourage savings for retirement usually divided into tax advantages such as tax deferral or performance-based incentives. In ways that the fruits of the incentives are only gathered when the task has been performed. In most cases, both contributions and returns on investment are exempted from taxes, while the payment is taxed. Parallel to the tax benefit, there are also other direct financial stimuli to increase saving such as flat or one time subsidies or matching grant.

Building on the base established by Clark Hull's Drive theories, incentive theories emerged in the 1940s and 1950s [28]. The underlying assumption of the Incentive theory is the more individual is paid, the higher his effort. The principal-agent theory developed its main contribution to this assumption. Likewise, the Expectancy theory [29] for example posits that people will decide such a way to obtain the desired outcome since they expect to maximise their satisfaction by choosing that outcome. According to this theory when performance-contingent incentives are present, the motivation and effort of the subject will increase. Bonner and Sprinkle [23] developed a framework to understand the factors and their effect on the relationships between motivation, effort, and performance. In their framework, cognitive and motivational mechanism act as a mediator in the relationship between monetary incentives and effort. According to them, a person, task, and environmental variables coupled with the incentives scheme variables moderate the monetary incentives-effort relation and the effort-task performance relation [25]. The link between the relation of financial incentives and performance is the effort which is the mental or physical activity to achieve something, and it may include many things. The effort includes developing strategy, devoting time to a task and physical effort. Performance, on the other hand, is the actual level of how well an

individual does on a particular task or the actual result. In this case, the performance can be said to be similar to the intention or the behaviour of a person [23].

The agency theory by Eisenhardt [30] assumes that human is motivated by self-interest, rational and are risk-averse. If the task does not increase their economic well-being, the individual will exert no effort. Looking at it positively, by providing incentives be it tax benefits of subsidies will increase the effort of the subject to save in a voluntary retirement fund. However, according to this theory, the interest of the agent (savers) and the principle (the governments/fund providers) must be aligned and that the financial incentives must be high enough to trigger the individual to perform. As such, crowding out can happen because of informational asymmetries. If an individual is uncertain about their ability, the value of the task or the character of the principle the incentives might create a negative signal that lowers the person intrinsic motivation [31]–[33]. According to Kamenica [8] monetary incentives can backfire which reduce the willingness to continue doing a task if the task is inherently interesting, and the task is noble, or paying too high wage or too low contingent for the successful completion of task which will lead individual to become so nervous that they will be unable to complete a task.

Self-efficacy, as explained by Bandura [34] in his social cognitive theory, provides the basis for understanding the complex human motivation on incentives and their ability. A person with higher self-efficacy sets himself higher goals and have a stronger commitment to complete the task [35]. Due to a raised level of motivation, individuals are more likely to put more effort in tasks than people with low self-efficacy. The social-cognitive theory claims that monetary incentives make tasks more interesting motivate a higher level of effort and leads to better performance. In turn, the subject will have their skills increases and leads to increased self-efficacy [25].

According to Gneezy et al., [22] monetary incentives have two kinds of effects: the standard direct price effect, which makes the incentivised behaviour more attractive and indirect psychological effect which work in the opposite direction to the price effect and can crowd out the incentivised behaviour. Offering incentives may signal that achieving a specific goal is difficult and the task is not attractive, or the agent is not well-suited for it, thus require additional incentive or reward [22]. It can also connote that the principals do not trust the agent's intrinsic motivation which signal negatively to the agent and can lower the intrinsic motivation of the agent to undertake the task. At the same time crowding out can appear when extrinsic incentive reduces another motive for undertaking the task for example if a higher personal benefit associated with a certain level of prosocial behaviour affects the reputational value attributed to a person's intrinsic and extrinsic motivation [22].

Financial incentives are considered an essential element in strategies to change prescribing patterns, although limited evidence of their effects can be found. Much of the literature focuses on whether the deferred taxes in defined contribution plans increase total retirement saving [1], [36]–[40]. Ideally, financial incentives should have multi-effect towards retirement planning; to increase scheme take-up or increase contribution in the retirement fund, and at the same time increase long-term individual and national savings and income. However, researchers have not come to a consensus on whether fiscal or financial incentives such as tax expenditure induces additional retirement saving or effective in providing a remedy for the private retirement market imperfection [41]–[44]. Indeed, whether retirement savings respond to any tax incentive is still questionable [41].

In the United States, significant tax reforms were made in the 1980s to provide incentives and regulate contributions to retirement savings such as 401(K) and (Roth) IRA which generated a substantial increase in participation in the IRAs [45]. Similar to findings by Bernheim [42] who argue that tax incentives may be indeed effective in favouring the participation and the amount of contributions to retirement saving plans. On the opposite, no consensus has been reached concerning the effect of tax incentives on private aggregate savings as well on the effects of these incentives on aggregate national savings overall. Poterba, Venti, and Wise [46] find that decreases in other financial assets do not offset 401(k) saving. They argued that 401(k) plans generate an increase in net retirement saving. Disney, Emmerson, and Wakefield [47] consider the effectiveness of the Stakeholder Pension which guarantees tax reliefs proportional to contributions and where returns accruing to the plan are tax exempt, while withdrawals are subject to taxation is effective in increasing aggregate private retirement savings.

Two Studies in Germany suggest a mixed view which the introduction of tax-favoured supplementary pensions reform in Europe. According to Börsch-Supan [48] tax relief increase the

household saving rate by 4 per cent, but with clear evidence of high substitution effect since it shifts saving into those channels with highest tax relief and small uptake rates. Corneo, Keese, and Schroder [49] analyse the effectiveness of the Riester Scheme reported that tax favoured mobilised private retirement savings, but with small effect, however, the share of households saving did not change significantly after the reform. Thus, indicating that the incentives do not stimulate additional saving, but only drives household to substitute non-subsidized to subsidised saving contract [50].

On the other hand, a study by Ramnath [51] finds no evidence that low-income Americans' retirement saving increases in response to the Saver's Tax Credit. Marino [52] claim a sizable increase in the tax deductibility of retirement funds contribution not lead to a substantial increase in the retirement fund investment [52]. Only a small fraction of the funds going into tax-advantaged savings vehicles can be 'new' saving, and such policies are expensive ways of encouraging savings. Also, to the extent that the reshuffling of assets leads to a reduction in the tax liabilities without any real change in economic behaviour and a deadweight loss associated with such policies. Additionally, since those with the greatest reshuffling possibilities are the wealthiest members of society, these policies will typically have some distributional impact [1].

Using a Danish data, Chetty [53] find that 85 per cent of savers are "passive:" their saving rate increases when it is done automatically. This study also found that the marginal changes in tax incentives have little effect on high-income earners even when this group potential having the most substantial benefit from the tax treatment. Also, it is also found out that lower income earner saving behaviour is unlikely to be responsive to financial incentives [53]. The finding shows that offering tax incentives would mean the loss of revenue to the government, without significantly increasing retirement savings. Introducing a tax advantage to a saving instrument is equivalent to a modest increase in the rate of return on a particular asset. Many of these schemes are associated with a tax deferral or partial tax exemption, rather than being entirely exempt from taxes [1]. Several incentives were also introduced in Australia to encourage voluntary superannuation contribution but with less enthusiasm. The participation rate in voluntary contributions in Australia was reported to decrease which suggest a re-examination of the effectiveness of the tax incentives [6]. Jappelli and Pistaferri [54] reported a lack of response to the changes both in the decision to invest and the amount invested in the long-term life insurance market in Italy where tax incentives were promoted. The research looked at the life insurance market in Italy where tax incentives changed for different income groups over the years [54].

By comparing tax-favoured retirement saving plans between the U.S IRAs, the UK retirement saving plans Tax Exempt Special Saving Accounts (TESSAs) and Individual Saving Accounts, Attanasio, Banks and Wakefield [1] concluded that the IRAs is ineffective in generating new private savings. The same conclusion was also made for TESSAs which does not provide an apparent increase in net private savings, but rather a reshuffling of existing financial and real assets. Their conclusion stated that only relatively small fractions of saving going into the tax-advantage saving could be considered as new saving. It is supporting the finding by Engen, Gale and Scholz [55] which stated that most of the investment in IRAs or 401(k) accounts reflects asset shifting, and not creating new net capital accumulation.

Saez [56] examine the effects of presentation and information on the take up of financial subsidies for retirement saving found out that subsidies raise take-up and contributions when more substantial effects when it is characterised as a matching contribution rather than an equivalent value tax credit (or cash back). The finding shows that real incentives and the presentation of those incentives affect consumer choices. Thus, one of the strategies used by many governments around the globe including Malaysia is to introduce financial incentives in term of matching grant, tax, exemption, tax deferral and subsidies. As for matching contribution, Madrian [57] shows that except some evidence from Germany and New Zealand, the effect of this type of incentive is minuscule in the United States and nonexistence outside of the US. Ofili [58] study shows that employer's matching contribution incentive and other benefits that come with the retirement saving plan are insignificant towards the behaviour to participate in voluntary saving to those having high intention to save. On the other hand, the effect incentives towards non-saver are controversially the opposite, which leads to unfavourable behaviour regarding participation in the retirement saving plans.

Jordon and Treisch [59] study indicated that tax benefit does not matter much, neither the general decision to invest for one's retirement, nor regarding the choice of a specific investment

product. The investment decision for a retirement plan is primarily, but not exclusively motivated by worries about their state pension and the wish to maintain their standard of living in old age. Investors are also drawn by media reports, their trusted bank advisors or their friends, colleagues, and relatives. The also concluded that the only financial criterion that drew their intention to retirement plan was the prospect of somewhat higher returns than the ones to be attained on a riskless saving account [59]. Hinz [60] explains that the extent of voluntary pension coverage is not indicative of the financial and tax incentives, instead of the limitations set upon the existing mandatory public pension system. The effect of financial incentives is dependent on the specifics of the system in the place where the research was conducted [15], [47], [61], [62]. The effect may be different in liberal social policy (as such in Malaysia) where the responsibility for pension adequacy is at the hands of the citizen compared to a conservative environment where contributions reflect previous earning or even more distinct in a social democratic system, in which states will provide for retirement [61].

Saving Intention

Saving intention, an analogue to behavioural intention is defined as an indication of an individual’s readiness to perform a given behaviour. It is a person’s subjective probability that he or she will perform a behaviour [63]. It is assumed to be an immediate antecedent or the proximal of behaviour. In this study, the behavioural intention is defined as an individual intention to save in the voluntary private retirement fund. It is operationalised as a conscious intention, plan or effort to save in a private retirement fund in accordance to TACT concept suggested by Ajzen [64]. In line with the conceptualization for this study, the intention was measured using 3 items adopted from Mahlanza (2015) and Croy (2010) to capture the respondent’s behaviour applying a common generalized method (Francis et al. 2004). The items in the intention scale generated internal consistency indicated by Cronbach’s alpha of 0.928 (N=334) for the 3 statements. Ajzen [65] warned that the set of items for intention must show a high internal consistency with each other and this has been shown in the pilot study and the final study. Majority of the TPB items which were adopted from research by Croy (2010) and Mahlanza (2015) on retirement saving are reliable and demonstrated by high internal consistency, both in the pilot test and the current study.

Perceived Behavioural Control Scale

Perceived behavioural control determines the ability of the respondent to perform a behaviour. It reflects the belief regarding control over the factors that may facilitate or impede performance of a behaviour (Ajzen, 1985, 1991; Taylor & Todd 1995, 1997). The PBC constructs which were not present in the TRA, will influence both intentions based on the assessment of the likelihood of success in performing the behaviour and is asserted as will also directly influence behaviour (Ajzen 1985, 1991, Todd Taylor 1995, 1997). The five items adapted from Croy (2010) and Mahlanza (2015) generated a 0.835 (N=334) Cronbach’s Alpha value.

The purpose of the mediation analysis is to see how perceived behavioural control mediates the relationship between the predictor (Cash Incentive and Tax Incentives) towards the intention to save in a voluntary retirement fund as shown in Figure 1.

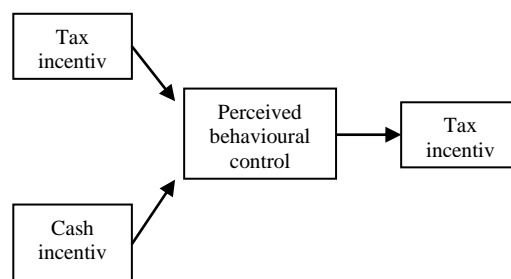


Figure 1: Mediating Effect of Perceived behavioural control on Incentives towards Saving Intention

Figure 1 shows that the Perceived Behavioural Control mediate the relationship between tax and cash incentives and the saving intention to save in a voluntary retirement fund. Both tax incentives and

cash incentives are measured as type of resources that facilitated the condition to save in the voluntary retirement fund. Prior research has shown that the effect of tax incentives and cash incentives towards saving in ambiguous [15], [47], [58], [61], [62]. The aim of this analysis is to gauge the effect of incentives as a facilitating condition in increasing an individual perceived control to save through their increase effort, ability and interest. The hypothesis for the mediating variables employing the transmittal approach [66] are as follow:

H1: The relationship between cash incentives and intention will be mediated by perceived behavioural control.

H2: The relationship between tax incentives and intention will be mediated by perceived behavioural control.

Methods

A nonparametric sampling procedure using bootstrapping is recognised as a powerful method for testing mediating effect (Hayes, 2009, Zhao et al., 2010, Ramayah et al., 2018). Hair et al., (2013) suggested to follow the Preacher and Hayes technique in mediating analysis since it does not make assumption about the shape of the variable distribution or the sampling distribution of the statistic and can be applied to small sample size (Ramayah et al., 2018; Hair et al., 2017; Preacher & Hayes, 2008). The survey questionnaire was made in English and was back to back-translated to Bahasa Malaysia and retranslated to English guided by language experts and was distributed to the selected organisation all over peninsula Malaysia in the first quarter of 2018. Before the translation process, the questionnaire went through a process to elicit the salient behavioural and outcome evaluation in part of items in the questionnaire. 60 respondents were chosen conveniently from Facebook with 25 of them answered. The questionnaire was then proofread by six academics and two professionals who are an expert in the area to affirm the strength and the language of the questionnaire. The questionnaire were then pilot tested in fieldwork to 80 respondents with 39 returns to report the Cronbach Alpha which then was used to correct and make refinement to the questionnaire

A suggested minimum sample size for a PLS-Sem analysis using the G-Power analysis (one-tailed, effect size=0.3, alpha err prob= 0.05, power (1-B err-prob= 0.85)) is 75 cases or using Chin [67] 10 times per most substantial number of paths from the independent variable going into a dependent variable is 30 (constructs to attitude). The final questionnaire sent and data was collected from all over Peninsular Malaysia using purposive multistage cluster sampling. 1200 questionnaires were distributed by post to 120 agencies with a public-private sector ratio of 20:80 throughout the 14 states of the Peninsula. Sixty one agencies participated, and 484 questionnaires were returned. Upon refinement of the cases, 334 usable set were used for analysis after the deletion of the non-subject respondent, already have voluntary saving, straight lining unengaged respondent, missing value more than 10% or missing all items in single construct and items-based z-score outliers and Mahalanobis' Distance multivariate outliers.

The items and construct for this paper was a part of a larger survey focusing on the Decomposed Theory of Planned behaviour. The final questionnaire contains three sections. The first section is to collect demographic information; the second collects retirement portfolio. The third part collect information on the constructs of the DTPB model based on Todd and Taylor [68], [69], Azjen [65], [70], [71], Rogers [72], Bandura [73], and Triandis [74]. The items measure of perceived behavioural control are adapted from Croy [75], [76], Mahlanza [77] following the guidelines of Todd and Taylor [78]. Both tax incentives and cash incentives have three indicators (cash1 to cash 3 and tax 1 to tax 3) each modified according to the operationalization suggested by (Bonner & Sprinkle [25]. All the items in the construct are reflective measure. The participants answered a completed questionnaire with 5 points Likert's scale (1=strongly disagree to 5=strongly agree, with no indicator in between) in the survey to measure the constructs. The initial Cronbach's Alpha value for each construct met the 0.7 reliability [79]. However, some items are deleted from the final analysis due to poor loadings, lateral and vertical collinearity issue to fit the requirement in the PLS-SEM measurement model.

Result

Measurement model

Table 1 shows the final reporting of the model reflective measurement model. The indicator loadings, CR and AVE of the reflective constructs in the model, shows most of the item's loadings exceed the recommended value of 0.708 (Hair et al., 2017), except for PBC4RC. However, the loading for this item is still within the acceptable value if the summation of loadings results in high loading scores and contributing to AVE scores of greater than 0.6 [80]. All of the constructs meet the threshold value for $CR > 0.7$ and $AVE > 0.5$ after the deletion process [81].

Table 1: Measurement Model

	Items	Loadings _a	Rho A _b	CR _c	AVE _d
Perceived behavioural control	PBC1	0.840	0.858	0.884	0.606
	PBC2	0.847			
	PBC3	0.826			
	PBC4RC	0.642			
	PBC5	0.714			
Intention	INT1	0.922	0.929	0.954	0.874
	INT2	0.957			
	INT3	0.926			
Cash Incentive	Cash1	0.915	0.899	0.935	0.829
	Cash2	0.910			
	Cash3	0.906			
Tax Incentives	Tax1	0.912	0.903	0.938	0.834
	Tax2	0.919			
	Tax3	0.909			

a. Items loadings > 0.5 indicates the indicator Reliability (Hulland, 1999, p. 198)

b. Rho A > 0.7 indicates indicator reliability (Nunnally, 1978)

c. Composite Reliability (CR) > 0.7 indicates internal consistency (Gefen et al., 2000)

d. Average Variance Extracted (AVE) > 0.5 indicates Convergent Reliability (Bagozzi and Yi, 1988; Fornell and Larcker, 1981)

The discriminant validity is assessed again and shows that indicators load actively on their constructs than on another construct in the model. The accumulative average variance between each construct and its measures also is higher than the average variance shared between the construct and another construct [80], [82], [83]. The Fornell larcker criterion also exhibits sufficient discriminant validity in which the square root of the AVE is larger than the correlations for all another reflective construct. Discriminant analysis through the cross-loadings shows that all indicators load high on its construct, compared to the other constructs. The HTMT ratio discriminant validity in the model fulfils the HTMT_{.90} [84] which indicates that discriminant validity has been achieved satisfactorily.

Structural model

The inclusion of a mediating variable which have bi-directional relationship, requires the bootstrapping (Bias-corrected and Accelerated) technique using a two-tailed testing at a significant level of 0.05 as recommended by Preacher and Hayes' [80], [85]. A statistically significant indirect effect with t-value > 1.96 , two-tailed, $p < 0.05$ should be taken as an evidence for mediation [80], [83], [85].

Table 2: Mediation Analysis: Total indirect effect

Relationship	Original Sample	Sample Mean	Standard Deviation	T Statistics	p-values
Cash Incentives -> Intention	0.013	0.013	0.020	0.638	0.523
Cash Incentives -> Perceived Behavioural Control					
Perceived Behavioural Control -> Intention					
Tax Incentives -> Intention	0.063	0.064	0.022	2.854	0.004
Tax Incentives -> Perceived Behavioural Control					

Table 3: Mediation Analysis: Specific indirect effect

Relationship	(β)	Std. error	T value	Confidence Interval		Decision
				LL	UL	
H1: Tax Incentives -> Perceived Behavioural Control -> Intention	0.063	0.022	2.905** *	0.027	0.113	Supported***
H2: Cash Incentives -> Perceived Behavioural Control -> Intention	0.013	0.020	0.634	-0.025	0.054	Not supported

***P<0.01, ** p<0.05, *p<0.1; p-values that correspond to the probability of erroneously rejecting the null hypothesis.

- Commonly used critical values for two-tailed tests are 1.645 (significance level= 10%), 1.96 (significance level = 5%), and 2.58 (significance level = 1 %) (Ramayah, et al. 2018; Hair et al. 2017).

Table 2 shows the total indirect effect, while Table 3 shows the specific indirect effect. The specific indirect effect from the bootstrapping result concluded that only one indirect effect (Tax incentives → perceived behavioural control → intention) with β =0.063 is significant with *t-values* of 2.854 and *p-value* <0.05. The indirect effects of this path 95% boot CI Bias-corrected (LL=0.026, UL=0.113) do not straddle a ‘0’ value in between indicating there is a mediation effect [80], [85]. On the other hand, the path relationship between cash incentives to perceived behavioural control to intention is not significantly supported (β = 0.013, t = 0.634, p-value = 0.523). At the same time, the 95% boot CI Bias-corrected (LL= - 0.025, UL=0.054) shows that ‘0’ straddle in between indicating there is a no mediation effect [80], [85].

Thus, it can be concluded that perceived behavioural control significantly mediates the relationship between tax incentives towards the intention to save in a voluntary retirement fund. On the other hand, the mediation effect of PCB on cash incentives towards the intention to save in a voluntary retirement fund is not significant. Thus, the analysis supported hypotheses H1, while H2 is not significantly supported.

Discussion

The mediation analysis shows how perceived behavioural control mediates the tax and cash incentive towards the intention to save in a voluntary retirement fund. The mediation analysis found a sufficient empirical support of the mediation effect of perceived behavioural control towards tax incentives and the intention to save in a voluntary retirement fund shown in the positive indirect effect of the relationship. In other words, the analysis discovers that for most Malaysian, the tax incentives increases their control belief in accomplishing the task. On the other hand, the cash incentives are not significantly supported as mediating an individual perceived behavioural control enough to motivate their intention to save in a voluntary retirement as shown in the non-significant relationship in Table 3.

Retirement issue is multidimensional and will affect everyone and the country’s government alike. The failure to solve the retirement issues could lead to potential economic calamity. Around the world, the population trends growths will not be able to be supported by the traditional pension

systems, and efforts are made to transfer this responsibility towards the individual. In most cases, to increase the take up for this type of saving, governments will provide incentives as a mechanism to motivate savers and non-savers to save in the supplementary pension [4]. Research has found clear empirical evidence that financial incentive has a substantial impact of the form of saving, but not clear on the extent to which incentives provide a significant boost to overall savings [86]–[88].

Conclusion

The objective of this study is to investigate the effect of incentives towards the intention to save in retirement saving as a mediating factor of perceived behavioural control. Taylor and Todd [78] warned that the absence of facilitating condition might represent barriers to behaviour and can inhibit the formation of intention, eventhough the presence of facilitating conditions may not encourage the behaviour. Citing Banterle [4], tax incentives do not trigger additional savings, but merely reduce the individual burden for a supplementary pension. In this study financial incentives are treated as part of the facilitating condition that affected perceived behavioural control and not the intention of behaviour, which coincided with the DTPB theory.

The financial incentives are divided into tax and cash incentive. The cash incentive is to provide immediate tangible benefits realised at purchase, while tax would have a delayed effect. Both are forms of winning effort design to increase retirement savings. The mediation analysis using Preacher and Hayes [85] technique shows that tax incentives are significantly positive, while cash incentives are not in influencing the intention to save in a voluntary retirement fund. This show that the respondent is not moved with the immediate tangible benefit instead is more interested in saving because of tax incentives. Tax incentives will increase their control belief [89]. A simple conclusion possible from this is that those who have the money or have higher income will benefit more from this long-term savings. Accordingly, this research has also shown that the perceived control towards the intention of the respondent is high, and cash incentives do not motivate while tax incentives only achieved a low coefficient of determination. This study shows that incentives in terms of tax would be more effective in increasing a person intention to save in a voluntary retirement fund in Malaysia, through the effect towards perceived behavioural control which is in line with research that found a similar outcome [5], [7], [90], [91]. It is in contrast with other research which found another type of incentives would be more progressive such as matching a contribution [92].

At the same time, this study shows that the tax incentive is more effective compared to cash incentives to influence voluntary saving in the Malaysian context. It contributes extensively to the literature on retirement savings. Inferring that it supports much research that claims those who would save in a voluntary retirement fund are those having a higher income since they will benefit more from tax incentives. Based to the findings of this research, it is suggested that the policy makers should consider revisiting the incentives system and emphasize more on taxation in order to increase savings in voluntary retirement fund.

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