Participation of Civil Servants in Dar es Salaam Stock Exchange, Tanzania

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**Purpose:** This study examined the behavioural factors that influence civil servants’ participation in stock exchange trading. The trading of stock can assist existing or new firms to obtain long-term and reliable financing resource easily and quickly. Thus, to improve the stock market and the economy as a whole, active participation of various players is important to increase the level of liquidity in the financial markets.

**Design/Methodology/Approach:** A cross sectional survey of two hundred sixty-eight civil servants working in urban areas was conducted by using questionnaires with likert scale type of questions. The data was analyzed by using structural equation modeling (SEM) method.

**Findings:** The results revealed that awareness and subjective norms are related to the respondents’ intention to participate in stock exchange trading positively. However, perceived costs, perceived risks and attitude had no significant effect on civil servants’ intentional behaviour.

**Implications/Originality/Value:** The result implies that policy makers should plan strategies that can enhance the respondents’ awareness and involve people who can pressure the civil servants to participate in stock markets trading. Cross sectional data collected in this study may need to be examined again in future when certain variables have changed, like education background or improvement in the dissemination of stock market information.

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**Introduction**

The trading of financial securities facilitates the transfer of funds from surplus units to deficit spending units in the economy and the availability of such funds will help the local industries to develop on a wide scale. The trading of securities occurs in the stock market which is an organized exchange for listed companies. The listed companies can get capital for business requirements through the trading of the company’s diverse financial securities that include debt...
and equity instruments (Akileng et al., 2018). Stock exchange trading takes place when investors buy the company’s shares and bonds in the primary market or from other investors at a price that both the buyer and seller agree upon in the secondary market. The trading of securities in the primary market or secondary helps funds flow into the companies that can put them to the best use.

Financial securities trading in Tanzania takes place at Dar es Salaam stock exchange which is an organized market. Dar es Salaam stock market is one of the 29 stock exchanges operating in the African continent. The stock market has been growing in various aspects including the number of registered companies since its inception in 1998. TOL gas limited was the first company to list its shares at Dar es Salaam stock exchange. Despite of gross domestic product (GDP) growth at 5.9% in Tanzania, higher than world gross domestic product of 5.8% yet civil servants participation in stock trading is low (BOT, 2021; Mwamtambulo, 2021). It is through stock market participation that civil servants transform their personal savings into investments. A higher growth in GDP could decode the higher level of income to civil servants that corresponds to demand for more investment avenues. One of the best investment avenues is through the stock markets. Studies indicate stocks traded appropriately in capital markets generate higher returns relative to deposit rates offered by commercial banks (Kaila, 2016). Furthermore, the government is promoting industrialization as part of the strategy to become the middle-income country and as the result this would increase the demand for long term financing.

Civil servants as investors would expect to gain if they can sell the purchased securities at a higher price or will lose when they sell the purchased securities at a lower price. Alternatively, investors can hold securities such as stocks and earn dividend when the public company pays out dividends to shareholders. Most stock buyers get greedy when the market is doing well and will buy additional stocks as they perceived that the price of purchased stocks will keep on increasing. Losses occur when the stocks market price falls below the initial purchase price of the previous stocks. In brief, perception of risk and costs such as unexpected price change and brokerage fees respectively play an important role in the investor’s mind. On the other hand, a poorly performing market triggers fear, which makes most investors sell their securities when the prices are low. Furthermore, the lack of awareness among the civil servant contributes to their reluctance to participate in stock market trading.

The increased participation in the stock market leads to higher liquidity, thus more firms attracted to raise capital through the stock exchange. Shafi (2014) asserted the importance of understanding individuals’ behaviour towards stock markets because of their good saving tendency. Contrary to corporate investors, individuals tend to sell stocks when prices are rising and thus enhance the market resilience. Civil servants participation in the capital market boost the level of liquidity in market as well (WFE, 2017). In addition, participation in stock trading would tend to enhance civil servants’ knowledge about finance and it provides opportunity to become shareholders as well. Therefore, it is imperative to examine the behavioural factors that affect civil servants’ participation in stock market, as the participation of civil servants is beneficial in improving their financial status and contributes to country’s economic growth.

**Literature Review**

There have been a number of economic sector reforms in Tanzania since 1980s and the major financial sector reforms started in 1990s. Economic and financial sector reforms were inevitable as the country’s economic condition had been affected significantly with effects of socialism that existed prior 1980s (Salum et al., 2014). The financial sector reforms focused mainly on the banking industry and other financial institutions. However, the Government of United Republic of Tanzania recognising the vital role played by the stock market in the economic development established Dar es Salaam Stock Exchange (DSE) in 1996 (DSE, 2016).
Thus, the establishment of DSE was part of the government broader economic reforms as the primary engine for country’s economic growth. In addition to other motives such as market for listed securities and raising capital for enterprises, the introduction of stock market was expected to support privatisation of 330 government parastatals earmarked by the Tanzanian government and widen resources ownership among Tanzanians as well (DSE, 2016). Furthermore, to ensure smooth operations and fair trading the capital markets and securities authority (CMSA) as an enforcement organ was as well established.

Despite the government efforts to widen ownership for individual investors in the listed companies yet their participation is still low (AllAfrica, 2016; BOT, 2019). Limited studies conducted about the stock market in Tanzania focused on issues such as investors buying behaviour, stock market challenges (Massele et al., 2013; Viswanadham et al., 2014). Furthermore, most of the previous studies focused on corporate investors, stock market performance through the capital markets (Akileng et al., 2018; Gwahula, 2018). Therefore, this study intends to fill the literature gap through examining the behavioural factors that affect civil servants’ participation in stock market so as to influence their perception towards stock market.

The Theoretical Framework of the Theory of Reasoned Action
The theory of reasoned action (TRA) was introduced by Fishbein and Ajzen (1975) to describe individual’s intention to participate in a particular behaviour subsequent to consideration of its implications. TRA asserts that individuals are rational and have ability to evaluate any available information prior making decision (Shaheen et al., 2022). Civil servants’ participation in any form of investment is voluntary and it is based on consideration of different factors such as risk, costs and benefits.

Thus, the theory of reasoned action could address appropriately the volitional behaviour of civil servants towards the stock markets (Ajzen, 1991). In addition, TRA has been adopted in various research discipline that include technological adoption and predicting consumer behaviour (Otieno et al., 2016). The theory also proved successfully in predicting banks’ depositors withdrawal behaviour, networking behaviour and intention to use Islamic bank products (Lajuni et al., 2017). Likewise, civil servants’ intention to engage in stock market trading could be explained well by TRA.

Development of Current Research Framework and Hypotheses
The initial TRA model comprises of attitude, subjective norms, behavioural intention and behaviour constructs (Ajzen & Madden, 1986). Problems related to attitude towards stock market and subjective norm can be examined by using TRA model. Ajzen and Fishbein (2008) suggest that an individual behaviour is determined by behavioural intention whereby attitude and subjective norms determine behavioural intention. Therefore, an individual who has an intention to participate in a particular action would most likely engage in the actual behaviour.

However, to address comprehensively the behavioural issues of the current study that affect civil servant participation in stock market trading; TRA framework is modified through inclusion of perceived costs, awareness and perceived risks constructs (Figure 1). The incorporated additional constructs have been tested in other research disciplines such as mobile government, mobile banking, and mobile commerce where they successfully predicted individuals’ intention to participate in a particular behaviour (Ammer & Aldhyani, 2022; Nadeem et al., 2020). Perceived costs refer to the extent that civil servants believe the financial cost associated with participation in stock market trading exceeds the expected return (Rahman & Sloan, 2017).

Therefore, civil servants believe the cost for participation in stock exchange could be high as the result the expected benefits would be low. In addition, civil servants awareness reflects any
mechanism that enable civil servants to have understanding of the benefits, procedures, risks and return concepts (Prabakaran, 2019). Civil servants having adequate information in relation to stock market practices increase their likelihood to participate in stock trading. Despite of civil servants being aware of the benefits and procedures they might still hesitate to participate in stock markets because of the perceived risks and costs (Alsoufi & Ali, 2014; Lee, 2009a). In the context of stock trading perceived risks reflect the possible loss that a civil servants would likely suffer as the result of their participation in stock trading. The following figure depicts the relationship between attitude, subjective norms, additional constructs and intention of civil servants to participate in stock markets.

![Figure 1: Current Research Framework](image)

**Hypotheses proposed**

H1. Perceived cost has positive and significant effect on civil servants’ intention to participate in stock markets

H2. Awareness has positive and significant effect on civil servants’ intention to participate in stock markets

H3. Perceived risk has positive and significant effect on civil servants’ intention to participate in stock markets

H4: Attitude will have positive and significant influence on the civil servant’s participation in stock market trading

H5: Subjective norms will have positive and significant influence on the civil servant’s participation in stock market trading

**Research Methodology**

**Measurements of the Study**

In order to achieve the objective of the study relevant measurement items were adapted from previous relevant studies (Ajzen, 1991; Lee, 2009b). Thus, a total of twenty-four items were adapted to measure the six theoretical constructs. The selected items were properly modified to suit the context of the current study. In addition, to ensure face and content validity developed items were given to experts to examine the relevance of each item in measuring the respective
constructs. The items to measure perceived cost were adapted from Lin, Hsu and Chen (2013), perceived costs from Lee (2009), attitude and awareness Rouibah, Ramayah and May (2011); Koropp et al. (2015), while items for behavioral intention and subjective norms were adapted from Mbawuni and Nimako (2015).

Closed ended questionnaire was used to obtain civil servants’ opinion on chosen items whereby each item was measured using 5-point likert scale anchored strongly disagree (1) to strongly agree (5). The use of questionnaire is suitable as the current study research design is quantitative that requires large sample size (Hair et al., 2017). To obtain fundamental information regarding civil servants the research instrument included five (5) demographic questions.

Data collection and analysis
The current study survey was conducted in Dar es Salaam in which a questionnaire was used to collect civil servants’ opinion about the stock market participation. Dar es Salaam is the metropolitan city in Tanzania with the largest population and large number of civil servants as well (NBS, 2022). Dar es salaam stock exchange is located at Dar es salaam and the study targeted civil servants working in Dar es Salaam City. Civil servants involved in the study were teachers, doctors and supporting staffs from all six districts in Dar es salaam. In order to have high response rate that meet the demands of the study electronic platforms such as emails and social network groups were used to distribute questionnaires. In addition, drop-off and pick-up method was adopted to administer questionnaires as well.

Purposive and convenience sampling techniques were used to select the respondents who meet the purpose of the study (Awan et al., 2022; Etikan & Bala, 2017). Furthermore, previous studies indicate recommended sample size for most of the studies should be more than 30 and less than 500 (Abbas & Shirazi, 2015). Other researchers suggest the sample size to be 10 times the number of items used in the study (Hair et al., 2010). Consequently, 280 questionnaires were administered to obtain the data required from civil servants. Finally, following the results of the electronic platforms and drop-off and pick-up method 268 valid questionnaires were used for analysis after discarding incomplete responses.

The structural equation modelling (SEM) was adopted to examine the structural relationship between the studied constructs. The presence of multiple interrelated items and constructs in this study could be appropriately analysed simultaneously through the second-generation method. In addition, analysis of moment structures (AMOS) version 21 software was used to run SEM analysis in two stages. The first stage related to validation of the measurement model using confirmatory factor analysis (CFA) and finally testing the study hypotheses. It is necessary to conduct CFA prior testing hypothesis so as to ensure unidimensionality, validity and reliability of the measurement model (Awang, 2015; Kline, 2011). Statistical Package for Social Sciences (SPSS) version 20.0 was employed in this study to analyse demographic data.

Results and Discussion
Respondents’ Demographic Characteristics
The results of the survey indicate fewer women (46%) participated in the survey relative to men (54%). This could be the result of cultural factors and previous education system in the country whereby females faced innumerable hurdles to get education relative to men. The survey also shows 98% of the respondents were within the age of 18 to 64 years. This implies majority of the civil servants are within the country’s working age (NBS, 2013). Furthermore, 53% of the civil servants were married and 44% were single. The remaining respondents (3%) were divorced, separated or widow.

Most of the single civil servants are expected to invest large proportion of their income relative to
married respondents because they have more commitments that affect their level of investments. Data for this survey was obtained from civil servants with varied level of education (91%); however, majority had diploma or higher level of education. This reflects group of people who have knowledge and experience regarding various issues as far as investment is concerned. The survey results also indicate 45% of the civil servants received high income which implies part of it could be invested in assorted assets based on their investment priorities.

Data Normality
Data distribution in this study was examined using Skewness and kurtosis. It was imperative to investigate normality of data as non-normal data tends to affect statistical results. Therefore, by using AMOS 21 the highest score generated for Skewness and Kurtosis were 0.97 and 1.16 respectively. The results confirm the current study data does not suffer from non-normality as the scores for Skewness and Kurtosis are within the required threshold of 1 and 3 respectively (Kline, 2011; Tabachnick & Fidell, 2013).

Multicollinearity Analysis
The presence of multicollinearity issues could affect diverse statistical estimates in this study that include validity of the predictions. Thus, variance inflation factor and tolerance value were used to determine the presence of multicollinearity. Following the test, the results indicate the highest scores for tolerance value and variance inflation factor are 0.8 and 1.4 respectively. Based on the statistical results data are free from Multicollinearity because tolerance value and variance inflation factor scores are within the threshold of 0.1 and 10 respectively (Kline, 2011).

Structural Model Analysis
This study adopts two stages approach of structural equation modelling (SEM) that involves validation of measurement model using confirmatory factor analysis (CFA) and path analysis.

Measurement Model
The initial measurement model resulted into poor model fit indices and factor loading for some of the measurement items were below threshold value of 0.5 (Fornell & Larcker, 1981; Hair Jr et al., 2003). To achieve desirable model fit four items with poor loading were removed in four iterations and re-run the model in each iteration. Table 1 presents the final measurement model for all constructs of the study.

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Item</th>
<th>Factor loading</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived costs</td>
<td>PC6</td>
<td>0.727</td>
<td>0.808</td>
<td>0.512</td>
</tr>
<tr>
<td></td>
<td>PC7</td>
<td>0.683</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PC8</td>
<td>0.739</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PC9</td>
<td>0.713</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Awareness</td>
<td>AW10</td>
<td>0.708</td>
<td>0.813</td>
<td>0.522</td>
</tr>
<tr>
<td></td>
<td>AW11</td>
<td>0.789</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AW12</td>
<td>0.740</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AW13</td>
<td>0.645</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived risk</td>
<td>PR15</td>
<td>0.615</td>
<td>0.772</td>
<td>0.533</td>
</tr>
<tr>
<td></td>
<td>PR16</td>
<td>0.791</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PR17</td>
<td>0.770</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude</td>
<td>ATT19</td>
<td>0.698</td>
<td>0.764</td>
<td>0.520</td>
</tr>
<tr>
<td></td>
<td>ATT20</td>
<td>0.802</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ATT21</td>
<td>0.675</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective norms</td>
<td>SN22</td>
<td>0.684</td>
<td>0.774</td>
<td>0.534</td>
</tr>
<tr>
<td></td>
<td>SN24</td>
<td>0.728</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SN25</td>
<td>0.776</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1 shows the results of the measurement model after removal of the items and the indices for new model following elimination of redundant items (Table 2).

### Table 1: Measurement model fit indices

<table>
<thead>
<tr>
<th>Details</th>
<th>IFI</th>
<th>RMR</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>CFI</th>
<th>Chi-square/df</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended criteria</td>
<td>&gt;0.90</td>
<td>&lt;0.08</td>
<td>&lt;0.08</td>
<td>&lt;0.08</td>
<td>&gt;0.90</td>
<td>&lt;3</td>
</tr>
<tr>
<td>Initial model -index values</td>
<td>0.878</td>
<td>0.082</td>
<td>0.0635</td>
<td>0.074</td>
<td>0.876</td>
<td>2.445</td>
</tr>
<tr>
<td>Final model -index values</td>
<td>0.910</td>
<td>0.079</td>
<td>0.0597</td>
<td>0.069</td>
<td>0.909</td>
<td>2.268</td>
</tr>
</tbody>
</table>

Note: SRMR: Standardized root mean square residual; RMSEA: Root mean square of error approximation; RMR: Root means square residual; CFI: comparative fit index; IFI: Incremental fit index; df: degree of freedom.

The assessment of measurement model intended to validate the unidimensionality, validity and reliability of the study latent variables. Thus, unidimensionality was achieved in this study because all measures of the study in the final model shown on figure 2 achieved the acceptable threshold. To determine the extent to which the current study measures reflects the adopted constructs accurately the factor loadings, average variance extracted (AVE) and composite reliability (CR) were explored (Table 3).

### Table 2: Discriminant validity and constructs reliability

<table>
<thead>
<tr>
<th>Variables</th>
<th>CR</th>
<th>AVE</th>
<th>PC</th>
<th>PR</th>
<th>ATT</th>
<th>BI</th>
<th>AW</th>
<th>SN</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>0.808</td>
<td>0.512</td>
<td>0.716</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PR</td>
<td>0.772</td>
<td>0.533</td>
<td>0.579</td>
<td>0.730</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATT</td>
<td>0.764</td>
<td>0.520</td>
<td>0.280</td>
<td>0.276</td>
<td>0.721</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BI</td>
<td>0.869</td>
<td>0.691</td>
<td>0.189</td>
<td>0.138</td>
<td>0.436</td>
<td>0.831</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AW</td>
<td>0.813</td>
<td>0.522</td>
<td>0.176</td>
<td>0.223</td>
<td>0.424</td>
<td>0.431</td>
<td>0.723</td>
<td></td>
</tr>
<tr>
<td>SN</td>
<td>0.774</td>
<td>0.534</td>
<td>0.408</td>
<td>0.258</td>
<td>0.633</td>
<td>0.534</td>
<td>0.433</td>
<td>0.731</td>
</tr>
</tbody>
</table>

Note: CR: Composite reliability; AVE: Average variance extracted; PC: Perceived cost; PR: Perceived risk; ATT: Attitude; BI: Behavioural intention; AW: Awareness; SN: Subjective norm.

Table 1 indicates factor loading for all measures are above the required threshold of 0.5. In addition the average variance extracted and composite reliability exceed the minimum threshold of 0.5 and 0.7 (See Table 3) (Awang, 2015; Fornell & Larcker, 1981; Lestari, 2022). Therefore, this confirms the current study measurements are valid and reliable. Furthermore, discriminant validity was assessed to confirm the extent measures of one construct could reflect other constructs used in the study. Table 3 indicates the square root of average variance extracted across the diagonal exceed inter-constructs correlations (Chuah et al., 2016). Hence, the results confirm the measures of one construct do not measure other constructs adopted in this study.

### Testing of Hypotheses and Model Fit

#### Model Fit

The second stage of structural equation modelling involves evaluation of the causal relationships between the model constructs (Anderson & Gerbing, 1988; Rouibah et al., 2011). The evaluation of the structural model was conducted after ensuring model fit indices were within the acceptable limits. Figure 2 demonstrates that model fit indices were in line with the required criteria as follows; SRMR= 0.060; RMSEA = 0.068; CFI= 0.905; IFI=0.907; RMR=0.078 and Chi-square/df = 2.247. Therefore, results of the fit indices confirm the model fit was achieved which pave the way for testing hypotheses as the observed variables of the study fits well to the theoretical model.
Table 4 presents the current study tested hypotheses (H1, H2, H3, H4 and H5). The results indicate two hypotheses H2 and H5 were supported by the study statistics. In addition, three Hypotheses H1, H3 and H4 were not supported by the statistical results. The study findings demonstrate that awareness has positive significant impact on civil servants’ intention to participate in stock exchange trading ($\beta=0.23$, $p<0.05$). Therefore, hypothesis H2 is supported. The findings are consistent with the previous studies regarding the impact of awareness on individual behavioural intention (Tiwari et al., 2021).

The results suggest that increase in civil servants’ alert regarding stock market would respectively associate with the rise in their stock trading behaviour. Civil servants motivation to engage in stock trading would be triggered by their level of awareness regarding the menu of assets traded, costs and trading procedures (Guiso & Jappelli, 2004). The lack of adequate information regarding the benefits of engaging stock markets among civil servants affects their involvement in stock trading. In addition, the availability of adequate information would reduce fear about uncertainties involved in stock trading. Thus, awareness is one of the key factors in enhancing civil servants’ participation in stock markets.

The results further confirm subjective norms has positive significance influence on civil servants’ intention to participate in stock trading ($\beta=0.39$, $p<0.05$). Thus, hypothesis H5 that subjective norm has positive impact on civil servants’ intention confirmed. The findings supported other previous studies regarding the impact of subjective norms on intention which include Dewi and Tamara (2020), and Ruano-Arcos, Rodriguez-Orejuela and Solis-Molina (2020) and Lwau et al., (2018).The results imply that the presence of more social pressure among the civil servants
towards stock market leads to increase in their intention to participate in stock market trading.

The hypothesis that perceived cost negatively influence civil servants’ intention to participate in stock market was not supported by the current study data ($\beta=-0.024$, $p>0.05$). Therefore, hypothesis H1 rejected. However, the Beta coefficient was negative implying that higher costs involved in stock trading could reduce civil servants’ intention to engage in stock market. Similarly, Hypothesis H3 regarding the negative impact of perceived risk on intention was not statistically significant, hence rejected ($\beta= -0.037$ $p>0.05$). Despite the results being statistically not significant but beta coefficient was negative demonstrating inverse relationship among the variables. The results imply civil servants are not sensitive to cost or risks involved in stock market trading. Furthermore, the transaction costs and fees involved could be lower that do not affect participants decision. The lack of awareness about stock market menu, instruments and risks involved could be one of the reasons as well. The relationship between attitude and intention was found statistically not significant as well ($\beta=0.118$, $p>0.05$).

### Table 4: Hypotheses Test Results

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Structural Path</th>
<th>Estimate of standardized coefficient</th>
<th>Critical ratio (C.R.)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>PC ----&gt; BI</td>
<td>-0.024</td>
<td>-0.262</td>
<td>H1 Not supported</td>
</tr>
<tr>
<td>H2</td>
<td>AW ----&gt; BI</td>
<td>0.232**</td>
<td>3.006</td>
<td>H5 Supported</td>
</tr>
<tr>
<td>H3</td>
<td>PR ----&gt; BI</td>
<td>-0.037</td>
<td>-0.303</td>
<td>H2 Not supported</td>
</tr>
<tr>
<td>H4</td>
<td>ATT ----&gt; BI</td>
<td>0.118</td>
<td>1.124</td>
<td>H4 Not supported</td>
</tr>
<tr>
<td>H5</td>
<td>SN ----&gt; BI</td>
<td>0.397***</td>
<td>4.04</td>
<td>H3 Supported</td>
</tr>
</tbody>
</table>

Note: $p^{***}<0.01$; $p^{**}<0.05$; H: Hypothesis; PC: Perceived cost; PR: Perceived risk; ATT: Attitude; BI: Behavioural intention; AW: Awareness; SN: Subjective norm; BI: Behavioural intention

### Contribution and Implications

This study examined the influence of behavioural factors that include perceived costs, perceived risk, awareness, subjective norms and attitude on civil servants’ intention to participate in stock market trading. To achieve the objective of the study five hypotheses (H1 to H5) were tested (See Table 4) by using structural equation modelling (SEM). Out of the five hypotheses, only hypothesis H2 and H5 were found statistically significant. Statistical result confirms that subjective norm has the strongest impact on influencing civil servants’ engagement in stock trading relative to awareness.

The result implies that people who matters in the perception of civil servants such as friends, workmates and relatives would approve their participation in diverse investments. Thus, policy makers should capitalise on the influence of the significant others in the eyes of civil servants to promote their stock market participation. This would include the use of opinion leaders in work places and in the community to convince others on the benefits of investing in stocks. In addition, the use of social groups and social networks such as Facebook and WhatsApp could also facilitate dissemination of key information and enhancing communal culture.

The study findings also confirm awareness to have strong impact on civil servants which suggests that policy makers and practitioners should focus on enhancing awareness among the civil servants. The awareness could be enhanced through taking advantage of the social pressure to provide appropriate financial education to the potential and existing market participants. The use
of aggressive marketing campaigns through diverse methods such as radio, television, newspapers, SMS, social networks, stock price competitions among civil servants and well-designed brochures to provide quick information.

As the study employed the theory of reasoned action theoretical framework with incorporation of perceived costs, perceived risks and awareness, it provides wider knowledge on the behavioural factors that affect civil servants’ participation in stock trading. Thus, the model adapted in this study could be replicated in other contexts to investigate behavioural issues that influence individuals to perform particular behaviour.

**Conclusion, Limitation, and Future Study**

The current study respondents were civil servants working in the urban area whose behavioural characteristics towards investment in financial assets could differ from those working in the rural areas. Furthermore, this study used non-probability sampling technique to draw the sample of civil servants. The use of non-probability sampling technique could limit generalization of the current study results to the civil servants in other contexts. Finally, the study employed cross-sectional survey design in which data was collected once. Further studies should be conducted that adopt longitudinal research design to provide more insight in case the examined behavioral factors would have changed relative to the current study results. In addition, more studies should be conducted in other contexts that employ probability sampling technique which allows generalization of the results to the entire population.

**References**


