

Individual Investors' Awareness and Participation in the Dar es Salaam Stock Exchange, Tanzania

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ABSTRACT

Participation of individual investors in Dar es Salaam stock markets stands at 1%, which is very low compared to Kenya, which is currently at 4%. Thus, the study evaluated the level of awareness of individuals that explained their low participation in the Dar es Salaam stock exchange. Primary data were collected from 200 participants and 200 non-participants and analysed using descriptive statistics and binary logistic regression. Findings revealed that non-participant individuals had a low level of awareness regarding DSE and its activities compared to individual participants. Regarding voting and decision-making by shareholders, only 13% of participants were aware of this right. Financial awareness was also found out to be low among individuals. Binary logistic results indicated that awareness of DSE, awareness creation seminars and access to media were likely to influence individuals' participation decisions. Thus, the study concluded that the level of awareness among individuals was deficient and affected their participation in the stock market. Therefore, the intensification of public awareness through seminars by DSE is essential. Also, DSE should increase the use of mobile trading platform and internet technologies to disseminate awareness information on investment opportunities for participation decision.

Keywords: *Individual, investors, awareness, stock exchange, Dar es Salaam, individual investors awareness.*

INTRODUCTION

Initiating the capital market in Tanzania aimed at providing investment opportunities to individuals and institutions in Tanzania (DSE, 2016). Investment, being the postponement of current spending for future economic gain, is an essential economic activity facilitating firms and the country's economic growth. The stock market creates investment opportunities for investors and generates long-term funds for listed firms and the government. Therefore, the Dar es Salaam Stock Exchange (DSE) as a financial market links individuals and firms seeking capital for expansion. Hence, firms issue shares and bonds to the public at a given price with a positive expected return, leading to increased firm's capital. Apart from that, individuals' participation contributes to overall market capitalisation (Vidanalage & Shantha, 2019). Despite the benefits of investment to firms, individuals, and the market, limited stock market participation through individual shareholding has been a significant global challenge named the "*stockholding puzzle or stock market participation puzzle*" (Mauricas, 2017).

As per Radtke *et al.* (2018), participation includes ownership and co-ownership of assets and benefits in financial returns from these assets. The participation of individual investors in the stock market differs and could be related to the growth and development of the specific country. In countries like Sri Lanka, the Colombo stock market has more than 85% of local retail trades (Vidanalage & Shantha, 2019). In Norwegian, direct individual participants are 23 per cent of the total population (Fagereng *et al.*, 2017). On the other hand, ordinary investors declined in countries like; Japan, the US, Singapore, and Taiwan as they sold their stocks during the Covid-19 pandemic (Liu *et al.*, 2020). In Sub Sahara Africa, direct individual participation in stock markets is still limited in number. Botswana reported an increase in retail investors from 20,000 in 2013 to 90,000 participants in 2018, contributing to more than 5% of the market turnover (Bolokwe & Sedimo, 2019). On the other hand, Nigeria has only 6% of the population (Andow & David, 2016). Similarly, the Johannesburg stock exchange has domestic investors' average individual participation rate at 10% (Thomas, 2017). The participation rate is due to the developed technology and

economic growth, which makes JSE as the leading stock markets in Africa (James *et al.*, 2015). This limited participation among individuals in Africa has been caused by economic factors such as; social factors, limited growth of capital markets and limited knowledge of the stock market (Andow & David, 2016). East African countries formed a technological platform in 2019 to link the capital markets known as Capital Market Infrastructure (CMI) among partner states (Ramji *et al.*, 2019). Nairobi Securities Exchange established its activities earlier than others, and individual participation currently stands at 4% of the total population (Langat & Rop, 2019). In Uganda, retail/individual participation in the equity market is very low; however, in government bonds, 1.49% of participants are retail (Ramji *et al.*, 2019). Conversely, in Tanzania, individual participants totalled 556,121, equivalent to 1% of the total population (DSE statistics, 2020). Although the establishment and maturity of the stock market vary per country, the level of individual participation is still low in East African countries.

Empirical studies (Liu *et al.*, 2020; Wu, 2016) noted that awareness, technology, and concern for future revenue are among the identified factors influencing participation among individuals. On the other hand, Wazal and Sharma (2017) show that financial awareness, and risks, contribute to the reported low participation among individual investors. However, Sarkar and Sahu (2017) argue that most investors in stock markets are aware of stock market activities because most are graduates with academic qualifications. Thus, awareness as among the identified factors affecting the participation of individuals is defined by this study as basic knowledge of the existence of the stock exchange, its basic aspects and basic operations relating to the stock markets. Though groupthink theory suggests that investors in the stock market work on tips and advice from groups (Evdakov, 2014), the decision to invest remains with an individual. Hence, self-awareness in the stock market is considered crucial because it motivates individuals to participate and thus facilitation of informed investment decisions. Additionally, self-aware individuals play an important watchdog role, increase their skills to protect themselves, properly allocate resources, and become up-to-date (Wangmo *et al.*, 2018; Acquah-Sam & Salami, 2013). Therefore, self-aware individuals

increase their knowledge about risks, returns, and protection methods before investing in the stock market. However, limited awareness impairs individuals' ability to make investment decisions leading to poor decision-making. For Participants, limited awareness denies them opportunities to exercise their rights, and, as a result, they cannot fully benefit from their investment. Similarly, low participation of individuals due to awareness can limit the growth and liquidity of east African markets (Ramji *et al.*, 2019; Abbas *et al.*, 2016). As a result, DSE continuously provides education and training to the public and prospective investors. It further disseminates knowledge through social media, printed and online newsletters, and annual market awareness campaigns for university students. Apart from DSE efforts, the government introduced a policy requiring the public to own 25% of the communication companies (URT, 2016). However, individuals limitedly acquired the Vodacom shares issued in 2015. Thus, apart from all the efforts, individual participation at DSE is still very low (Mwamambulo, 2021). The low participation is against the government's efforts to reduce income inequality and make individuals financially self-sufficient as per SDG 2030 (UNDP, 2015).

Low individual participation has been an area of interest for many researchers (Liu *et al.*, 2020; Wazal & Sharma, 2017; Wu, 2016). They have addressed numerous factors affecting participation, such as; financial return, income, awareness, and technology. However, locally current studies (Mwamtambulo, 2021; Epaphra & Kiwia, 2021) covered different factors like income, advice from friends and brokers, and financial knowledge. However, they rarely addressed awareness factors that may affect the investment decision of individuals. Limitedly addressing DSE's knowledge and share trading may reduce future individual participation in DSE. Because stockholding starts with information on what shares to buy, in what company, the future benefits and decision on whether to invest in share (Wangmo *et al.*, 2018). Moreover, ignoring factors such as awareness of shareholders' rights may limit the role of DSE in ensuring effective and adequate protection for individual investors, thus limiting the development of the stock market (Abuselidze, 2018). Thus, this study is among the first to focus entirely on examining awareness factors influencing individual participation in DSE.

Additionally, it used two theories, self-awareness theory and group think theory, which differ from those used in previous studies. Gumbo and Sandada (2018) posit that awareness is a significant predictor of individual investors' decision to participate in the stock market because it concerns individuals' choices. Therefore, this study determined individual investors' awareness regarding DSE, investors' rights, share trading, and DSE activities. Furthermore, the study examined how awareness through media facilitate the accessibility of DSE services and influence individuals' investment intentions. Hence, the study established baseline knowledge of national individual participants and non-participants on DSE operations and examined the influence of awareness factors on individuals' participation decisions.

Literature Review

The literature is divided into two parts: a theoretical review and an empirical review. Theoretically, the study is mainly guided by self-awareness theory which is supported by groupthink theory.

Theoretical Review

Groupthink theory (GTT) as advanced by Janis in 1972 and improved by the same in 1982, argues that "groups bring out the worst as well as the best" in decision-making. Janis assumed individual making decision through group influence and treated group thinking as a condition that may lead to consequences with a low probability of success due to poor decision-making. Additionally, Evdakov (2014) noted that stock market traders work on tips and information from different sources suggesting great stock or stock which rises in price. As a result, individuals' decisions to buy or sell might be influenced by others rather than their own informed opinion. The theory was applied in explaining individuals who invest without prior knowledge of DSE and share trading. Conversely, the group cannot affect proper decision-making if an individual is self-aware, leading to introduction of self-awareness theory. Self-awareness theory as proposed by Duval and Wicklund (1972), states that 'when we focus on ourselves, we evaluate and compare our current behaviour to our internal standards and values. Williams (1985) noted that self-awareness results in increased self-knowledge and adherence to standards and long-standing morals and beliefs. Thus, decision quality could be enhanced by making individuals self-aware and providing an appropriate

standard. Self-aware individuals know their investment choices and how they can respond to difficulties and make decisions through voting in companies. With self-awareness, an individual can decide whether to invest in shares or pursue an alternative choice. Hence individual self-awareness is considered important in making meaningful choices (Dishon *et al.*, 2017). Thus, the decision made by the individual will be according to his standard, morals, and belief; however, it might be a high-quality or poor-quality decision. Hence, the theory was applied in examining individuals' self-awareness of investment choices. However, self-awareness theory focuses mainly on individuals' personal factors influencing a decision. Thus the current study includes external factors such as awareness creation, financial awareness, and media accessibility, to examine their influence on individuals' investment decisions.

Empirical Review and Hypotheses Development

Level of Awareness of the Stock Market and Participation

Individuals need to have basic knowledge of DSE and understand fundamental issues relating to the stock market, such as; the activities of DSE, benefits of owning shares, and rights of shareholders before deciding to buy shares. Qureshi *et al.* (2014) studied determinants of trust and the level of awareness of retail investors in the Pakistan stock exchange. They found a positive relationship between awareness and individual investors' trust to invest in the stock market. Similarly, with limited awareness, the individual's decision to invest becomes difficult (Sri Lanka Security and Exchange Commission (SEC), 2012). Conversely, Wangmo *et al.* (2018) found out that limited awareness of the stock market, trading activities, and benefits affect participation in the Royal Security Exchange of Bhutan. On the other hand, Gumbo and Sandada (2018) found that awareness of investment opportunities relating to the stock market influence participation. Similarly, Acquah-Sam and Salami (2013) reported that it is not only knowledge of shares but also about the capital markets activities that affects security market participation in Ghana. Thus, the authors (Gumbo & Sandada, 2018) focused on authorities rather than individual investors. Apart from that, the different markets located in different geographical areas may differ in factors affecting participation. DSE, as an emerging market, limited knowledge of DSE

among citizens may affect individuals' participation or lead to wrong investment decisions because group think theory positively supports this. Hence, the study assessed the level of awareness of individuals relating to the DSE and its influence on individuals' participation, leading to the establishment of the Hypothesis (H₀₁);

H₀₁: Individuals' awareness of DSE activities does not affect their participation in the stock market.

Financial Awareness of Individuals

Financial awareness enables an individual to predict the future return and progress of the company to invest in it and therefore may motivate individuals to participate. Arts (2018), in the study on stock market participation and financial literacy, found a positive relationship between financial literacy and stock market participation. Similarly, Sivaramakrishnan *et al.* (2016) noted that financial literacy significantly impacts the intention to invest in the Indian stock market. Implicitly, individuals' financial awareness contributes to investment decisions. Mishra (2018) identified financial and investment awareness as the key boundaries to participation. In Tanzania, there is a mixed picture; previously, Noel (2013) found out that financial literacy in Tanzania has a small impact on stock market participation among academicians.

However, Epaphra & Kiwia (2021) reported a significant influence of financial literacy on stock market participation among the general public. Therefore, whether financial awareness differs between individual investors compared to those non-individual investors is a matter that this study explored. Clarifying the contradiction of the findings among authors is necessary by examining different groups of individuals from different economic activities and awareness levels. Additionally, Arts (2018) focused more on moderating the role of country-specific social connectedness in participation and financial literacy. Equally, Sivaramakrishnan *et al.* (2016) focused on individual investors only and used the theory of planned behaviour. However, the current study focuses on the financial awareness of both participants and non-participants of DSE and analysed their relationship

using binary regression and self-awareness theory. Therefore, this leads to the establishment of the following hypothesis;

H₀₂: Financial awareness does not affect individuals' investment decision in the stock market.

Awareness Creation and Participation

The awareness of the capital market and its activities may contribute significantly to capital market participation. Vohra and Kaur (2017) supported that organized education and awareness camps could increase individuals' awareness, leading to increased participation. Similarly, Mishra (2018) noted that financial education programmes enhance individuals' financial awareness, impacting their participation. These findings relate to Bolokwe & Sedimo (2019), who noted that public education with tailored inventiveness to students and the broader population is the biggest driver in increasing individual participation in Botswana. Hence knowledge and awareness creation encourage individuals to invest in the stock market. Security Exchange Commission (SEC) (2012) in Sri Lanka noticed that many individuals who attended seminar/training courses were willing to invest in the share market. Apart from general awareness, Clavery (2018) argued that acquiring financial skills enhances the achievement of financial goals in share business and therefore increases participation. Similarly, Sivaramakrishnan *et al.* (2016) suggest implementing different programmes and the development of modules to increase financial literacy and enhance participation. However, previous studies (Mishra, 2018; Sivaramakrishnan *et al.*, 2016) focused on financial awareness creation and not other areas. Although the studies suggested awareness creation seminars and programmes to improve participation, however, none of them analysed its direct influence on individual participation, which this study intends to examine, leading to the proposed null hypothesis H₀₃ as follows;

H₀₃: There is no relationship between awareness creation seminars and participation in the stock market.

Access to Media and Participation

Individuals access information about investment opportunities through different means such as; newspapers, radio, television and social media. Choi & Robertson (2020), in their study titled 'what matters to individual investors, examined how individuals make investment decisions. They found out that advice accessed from media sources influences individual decisions to invest. Similarly, Hu *et al.* (2019) noted that the media highly induce individual investors with limited prior experience and awareness to participate in the stock market. Hence, television and other media increase awareness and familiarity for the new investor leading participation (Leodegard, 2019). In contrast, Tham (2018) argued that media easily transmit information about the stock market however; increasing individuals' trust in media does not necessarily increase participation. Apart from television, Cheng *et al.* (2018) revealed that households which use internet participate in stock markets compared to non-users. The study further noted that new platforms reduce transaction costs and make interactions and learning easier online. However, previous studies (Hu *et al.* (2019) used single source of information (television) and linked viewership on participation. On the other hand, Choi & Robertson (2020) used secondary panel data to examine how individuals make decisions. Thus the current study combined the variables and examined the influence of television, DSE mobile application and social media on individual participation in DSE. Hence, the null hypothesis H_{04} is as follows;

H₀₄: Access to media does not influence individual participation at DSE.

Investors' Awareness of their Rights

Individuals' decision to invest in the stock market presupposes the possession of knowledge and awareness of their rights, policies, and duties performed by investors. OECD (2011) defined shareholders' rights as the number of shareholders' rights to participate in the company's decision-making, operations, management, supervision, and control. Sempeho (2013), in her study protecting individual investors at the Dar es Salaam Stock Exchange, showed that individuals have limited knowledge of their rights in the companies. Additionally, Abuselidze (2018) concluded that awareness of

investors' rights facilitates the protection of individuals by the firm and the security market, leading to a liquid stock market. The rights of an individual investor, as addressed by the Security and Exchange Board of India-SEBI (2017), includes the right to; receive copies of the Annual Report, vote in general meeting, receive the dividend, inspect the statutory reports, receive corporate benefits like rights, and bonus. Individual awareness of these rights may facilitate sound investment decisions but also the active participation, as supported by self-awareness theory. However, Sempeho (2013) focused more on institutions (DSE and CMSA) in examining investor protection and used only 80 individual investors, while the current study involved 200 participants. Thus, in Tanzania, the study propounded that individual investors in the DSE, might not be aware of their rights. The study, therefore, examined shareholders' level of awareness of their rights.

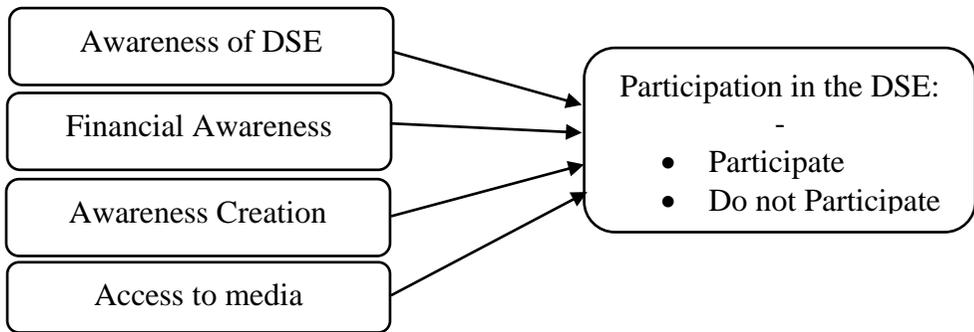


Figure 1: Conceptual Framework

Methodology

The current study adopted the Pragmatic philosophy because the fundamental process of problem-solving offers flexibility, speed, efficiency and accuracy (Rahman & Zakaria, 2008). Furthermore, it combines different philosophies (interpretivism and positivism) in answering the research questions. Therefore, the study used a mixed approach applying both quantitative and qualitative methods. The qualitative approach was used to analyse information collected from key informants and explain the quantitative results in detail. The quantitative approach was used to test the research hypotheses and measure the relationship between awareness factors and participation. A mixed approach was used concurrently from data collection

to analysis of the variables. The approach was applied because it facilitates the triangulation of data collected and uses different methods enabling a deep understanding of the information (Brus, 2017). The study area was the Dar es Salaam region because it is a location of DSE and its 15 brokers. Apart from that, Dar es Salaam is concentrated on commercial activities, contributing to approximately 90% of the country's tax revenues and 17% of the total value of GDP (Haji and Cunningham, 2015), thus possessing a greater population with disposable income. Thus, The population of the study comprised the working individuals (participants of DSE and non-participants), totaling 3,599,412 (NBS, 2020). Both random and snowballing sampling techniques were used to access non-participants and participants, respectively. Snowballing was used in selecting participants because the individuals' physical locations were not identifiable from the DSE repository. For non-participants, simple random sampling was used because every working adult located in one of the districts in Dar es Salaam had a probability of being selected (Pandey & Pandey, 2015). The sample size for the study was 400 respondents, determined using Cochran (1977).

$$n = \frac{no}{1+(no-1)/N} \dots\dots\dots(1)$$

$$n = \frac{384}{1 + (384 - 1)/3,599,412}$$

Cochran led to 384 respondents, but the logistic model requires a significant sample size (Epaphra & Kiwia, 2019), and therefore 400 respondents were obtained. The sample size distribution was between participants and non-participants at a ratio of 1:1, as per Etikan and Bala (2017). Therefore 200 respondents were participants, and 200 were non-participants. The data were collected using a structured questionnaire and key informants interview guide for six key informants. The key informants included individuals considered experts in the stock market, including two (2) DSE informants, a CMSA spokesperson, two (2) brokers and an academician. The questionnaire was pre-tested on 30 respondents, different from those involved in the main data collection. Pre-testing enabled measuring validity because challenges, difficulties and recommendations observed in responding to questions were

improved for final data collection. Data collected were subjected to a reliability test, and Cronbach's Alpha coefficient test was performed for 14 items. Results indicated an internal consistency score of 0.806, which is acceptable, as per Livingston (2018). Qualitative data were analysed using thematic analysis as adopted and improved from Salleh *et al.* (2017). The process involved reading transcripts and interviews from key informants and then coding manually. Sorting coded information follows to get potential themes and sub-themes based on importance, relevance, and relation to the theory and objectives of the study. Finally, results were triangulated by integrating themes and responses into the objectives to link with inferential statistics results on awareness and individuals' participation at DSE. Quantitative data were analysed using descriptive statistics and Binary Logistic regression. Binary Logistic regression showed the relationship between participation and awareness variables, as adopted from Berger (2017). Omnibus test of model coefficient had P-value=0.000, Cox and Snell R Square (48%) and Nagelkerke R Square (67%), which indicate good explanatory power of the model. Hosmer and Lemeshow tests were all performed, and the coefficient confirmed model fitness (P-value = 0.783).

The dependent variable (*P*) was participation which was dichotomous with 1 for participants and 0 for non-participants. The independent variables included; awareness of DSE (*dse*), financial awareness (*fl*), training received (*tr*), and access to media (*md*), as defined in Table 1. The model used was as follows;

$$\log\left(\frac{P}{1-P}\right) = \beta_0 + \beta_1, \mathbf{dse} + \beta_2, \mathbf{fl} + \beta_3, \mathbf{tr} + \beta_4, \mathbf{md} + \dots \epsilon_i \quad \dots$$

Whereby; *P*=Likelihood of participation; β_0 = constant (y-intercept); β_1, \dots, β_n are coefficients of explanatory variables; β Coefficient (-1 or 1) ϵ_i = error term 0.05 (CI 95).

Table 1: Variable Description and Measurements

Variables	Variables description and Measurements
P/P-1 Participation in Stock Market	1= Participating in the stock market by having shares; 0= Not participating
dse Awareness of DSE	0= Aware of DSE 1= Un-aware of DSE
fl Financial Awareness	0= Financial un-aware 1= Financially aware
tr Awareness creation	1= Attended awareness seminar (Yes); 0= Otherwise
md Access to media	1 = Yes; 0 = Otherwise

Results and Discussion

Demographic Characteristics

The demographic characteristics of respondents included age, gender of respondents, marital status, and education level of individuals as presented in Table 2 as follows;

Table 2: Demographic Characteristics

Category	Demographic Characteristic	Part. Freq.	Perc (part)	Non-Part Freq.	Percentage (non-part)	Pearson's Chi-square (P-Value)
Age	20 to 30	6	3.5	61	30.5	0.000
	31 to 40	25	12.5	61	30.5	
	41 to 50	51	25.5	37	18.5	
	51 to 60	65	32.5	27	13.5	
	61 and above	53	16.5	14	7	
Gender	Male	111	55.5	121	60.5	0.311
	Female	89	44.5	89	44.5	
Marital Status	Single	60	30	69	34.5	0.336
	Married	140	70	131	65.5	
Education Level	Primary education	34	17	30	15	0.078
	Secondary Education	22	11	41	20.5	
	Vocational Education	60	30	55	27.5	
	Degree (1 st Degree, Masters, Ph.D.)	84	42	74	37	

Source: Field Data, (2020)

As presented in Table 2, the results show that 55.5% of respondents were male and 44.5% female. Men participate more than females because women fear risk more and have limited income and financial awareness than men (Bacher, 2022; Bucher-Koenen, 2021). Regarding age, individuals between 41-50; and 51-60 years participate more in DSE compared to other age groups, which is also in line with Pearson's Chi-square results having a P-value = 0.000. Hence there is an association between age and participation because aged individuals are committed and diversify resources for future expected returns. Results further indicated that married respondents participated more than single (single, widow, and divorced), by 35.5% for both participants and non-participants. The findings relates to Choi & Robertson (2020) and Hu *et al.* (2019) who noted that married people are more likely to participate than single. Furthermore, graduates participated more than non-degree by 40%, which can be due to education gained from universities' syllabus which enhanced awareness.

Level of Awareness

In measuring the level of awareness, the paper assessed the level of awareness relating to; DSE itself, DSE activities, financial awareness, share trading awareness, awareness of the benefits, and awareness of the rights of shareholders, which are expected to be known by shareholders as follows;

Table 3: Level of Awareness of Individuals

Type of Awareness	Non-Participants	Percent of Non-Part	Participants	Percent of Participants
Aware of DSE				
Aware of DSE	51	25.5%	110	55%
Aware of DSE activities	40	20%	125	62.5%
Financial awareness (Literacy)	31	15.5%	60	30%
Access to Share trading seminars	9	4.5%	107	53.5%
Aware of Benefits				
High return	77	38.5%	178	89%
Safe Investment	103	51.5%	186	93%
Capital gain	48	24%	99	49.5%
Collateral	61	30.5%	20	10%

Source: Field data (2020)

Overall, the results in Table 3 indicate a low level of awareness regarding the existence of DSE because only 110 (55%) of participants and 51 (25.5%) non-participants know DSE. On the other hand some participants are unaware of DSE and its activities, which can be due to group influence. Financial awareness is also deficient for participants and non-participants, as only 60 (30%) and 31 (15.5%) respondents were financially aware. Additionally, awareness creation seminars were accessible to 107 (53.7%) participants and only 9 (4.5%) non-participants. The trickle-down effect is inevitable with limited attendance in awareness seminars for both participants and non-participants. Furthermore, Table 3 shows that individuals, participants and non-participants are more aware of return and safety benefits than other benefits. However, collateral and transferability benefits it is unlikely to be known by both participants and non-participants due to individuals' usability and awareness level. Awareness of Shareholders' rights was measured based on Arnstein's (1971) participation assumptions, divided into three tiers i.e. non-participation, participation through informed and consultation, and participation in decision-making. Participants were required to select how they participated in their invested companies, and they could select more than one mode/right of participation as applied by Gaber (2019). The results are as shown in Table 4;

Table 4: Awareness of Shareholders' Rights

Participation Process		Responses (200)	
		Frequency	Percent (%)
Non-participation	I have no influence	97	48.5
Informed and Consulted	Informed (F.S. and Reports)	95	47.5
	Consulted but not informed	26	13.0
Participate in Decision Making	Democratic vote	26	13.0
	Decision making	9	4.5
	Implementing decision	6	3.0

Source: Field data (2020)

The results in Table 4 shows that, among 200 participants, 97 (48.5%) believed not to influence the company, and 47.5% were just being informed. Only 26 (13%) participants knew that they had a right to a democratic vote and decision-making and only 6 (3%) respondents knew that they

participated in implementing the decision. Making decisions and approval is done in annual general meetings, including all shareholders, by casting the democratic vote. Thus, results indicated that individual investors at DSE had limited knowledge of their rights. The results relate to Sempeho (2013), who noted that few individual investors are aware of their rights as investors; the majorities only know about dividend payout. Limited awareness of rights might be due to the group effect where individuals acquire shares after being advised by dealers, brokers or by family members.

Relationship between Awareness Variables and Participation

Binary logistic regression assessed the likelihood of awareness factors influencing the participation of individuals in the stock market. Because participation as a dependent variable is dichotomous with '1 Participating' and '0 Not-participating'. Results are reported in Table 5 as follows;

Table 5: Awareness Factors Vs. Participation in the Stock Market

	B	S.E.	Wald	df	Sig.	Exp(B)
Age of respondent	-3.788	1.079	12.328	1	0.000	0.023
Sex of respondent	-0.847	0.335	6.409	1	0.011	0.429
Marital status	0.432	0.404	1.145	1	0.285	1.540
Education level	-0.089	0.518	0.030	1	0.864	0.915
Education (Degree)	0.875	0.380	5.312	1	0.021	2.400
Awareness of DSE	-1.272	0.334	14.532	1	0.000	0.280
Financial awareness	-0.633	0.429	2.179	1	0.140	0.531
Awareness creation	-2.472	0.470	27.707	1	0.000	0.084
Access to media	-2.084	0.580	12.911	1	0.000	0.124

Source: Field Data (2020)

P-value = 0.000, Cox & Snell = R square = 0.480, Nagelkerke R square = 0.639

Hosmer and Lemeshow test (chi-value = 4.757, df=8, p=0.783)

Awareness of DSE and Participation

Table 5 results indicated that individuals who are aware of DSE and its activities, are likely to participate in the stock market by 0.280 times more than those who are unaware of DSE. Hence, the null hypothesis that awareness of the stock market does not influence participation is not accepted as $P\text{-value} = 0.000$ ($P\text{-value} < 0.05$). The results relate to the findings of Wangmo et al. (2018), and Qureshi et al. (2014). They found out that awareness of the capital market among individuals influences participation in the stock market. Results also relate to findings from KII, where it was noted that individuals, especially in other regions, do not know about DSE and therefore, it is difficult for them to participate. These results implied that individual's awareness of DSE and its activities are more likely to participate. Increased participation can lead to the attainment of Africa Development goals per Agenda 2063, which determines to increase private equity investment in the stock market, enabling increased financial access to firms (AUC, 2015).

Financial Awareness and Participation

Findings in Table 5 show that financial awareness does not influence individuals' likelihood to participate in the stock market. Therefore, the null hypothesis that financial awareness does not affect individual participation is accepted as the $P\text{-value} = 0.140$ ($P\text{-value} > 0.05$). The findings imply that financial awareness contributes to individual participation but is not a significant factor in investment decisions. The results contradict Arts (2018) and Epaphra & Kiwia (2021) findings; however, they relate to the findings of Noel (2013). The contradiction can be due to differences in the advancement of the stock market and level of awareness of individuals. Hence participants seek advice from financial analysts and brokers on a firm's financial situation before making an investment decision, and they do not need to be financially aware. Information from key informants compounded the findings that individuals trade their shares through brokers who cover their financial and risk analysis at an affordable commission.

Awareness Creation and Participation

Table 5 further revealed that awareness creation among individuals was likely to influence their participation in the stock market by 0.084 times. As a result, the null hypothesis is not accepted and accept the alternative that awareness creation influence individual participation in stock market because $P\text{-value} = 0.000$ ($P\text{-value} < 0.05$). The results relate to findings by Mishra (2018), and Liivämagi (2016), who noted that individuals who attended training participate more actively in stock trading. Therefore, awareness creation on different issues pertaining to the stock market and trading shares among individuals increases their knowledge and the probability of investing. Seminars increase individual awareness of the matter and enable sound decision-making as per Self-awareness theory. These results pave the way for Capital Market and Security Authority (CMSA) to attain its targets, focusing on using different means to build prospective participants' technical and financial capacity (CMSA, 2018).

Access to Media

Access to media by individuals such as; newspapers, television, and other social media is likely to influence individual participation in the stock market by 0.124 times compared to individuals with limited access to media. Therefore, we do not accept the null hypothesis and accept the alternative that access to media influence individual participation in the stock market because $P\text{-value} = 0.000$ ($P\text{-value} < 0.05$). The findings relate to Choi & Robertson(2018), Leodeguard (2019) and Hu *et al.*(2019), who noted that media induce entry into the stock market by first-time investors with low stock market awareness. Meaning that access to newspapers, television, mobile application, and social media transfer knowledge and information to individuals quickly, allowing them to make sound decisions. It was also observed during data collection, where one of the respondents stated,

"...I did not get any seminar, but I learned about investing in the stock market through my mobile phone by reading articles relating to benefits of share ownership and decided to buy shares...".(Field Data, Dar es salaam, May 2020).

Conclusion and Implication

Adequate investment knowledge is among the optimal investment strategies that motivate individuals to participate in the stock market. The findings indicated that limited awareness of matters such as stock market activities, and rights of shareholders are among the challenging issues among participants and non-participants of DSE. Impliedly, knowledge of DSE caused by the high education level, access to media and awareness creation seminars were found necessary. An increase in awareness creation seminars opens the minds of individuals to new opportunities available in the market, hence increase participation. Theoretically, the investment decision made by aware individuals aligns with self-awareness theory. However, individuals who invested in shares without knowledge of DSE or share trading contradict with self-awareness. However, it relates to groupthink theory because some participants are unaware of DSE activities due to the groupthink effect. Impliedly, self-awareness requires information accessibility, awareness seminars, and awareness of investment opportunities to make proper investment decisions. Practically, the findings noted that individuals with access to media such as; television, newspaper, social media, digital media, a mobile application such as DSE mobile trading platform, and the internet had a high likelihood of participating in the stock market. Because through media, individuals easily acquire knowledge of DSE and security trading this may lead to their participation. Continuously increasing community training and awareness seminars by DSE and CMSA are therefore demanded, especially for university students, the young working generation, and social groups considered potential investors. DSE should also publicize more on the use of DSE mobile trading platform and collaborate with media service providers to disseminate awareness information to the public, primarily young and working individuals.

Contribution of the Study

Empirically, the current study contributes to individual involvement in the stock market by addressing key awareness factors that can increase individual participation in DSE. Moreover, the study contributes to policymakers by addressing the high likelihood of individuals participating in DSE after awareness seminars. Thus, the study urges CMSA to ensure that policy

related to awareness creation and usage of universities to disseminate information is maintained to increase public participation.

Limitations and Areas for Future Research

The current study included individual participants and non-participants located in the Dar es Salaam regions, which may limit the scope of the study. Therefore, further research should use the same sample and methods but focus on regions other than Dar es Salaam. Furthermore, they can include group investors and those invested in mutual funds to assess their participation in the stock market compared to direct individual investors.

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