Journal of African Real Estate Research
Volume 9, Issue 1
www.journals.uct.ac.za/index.php/JARER/

Investor Confidence and the Growth of Reits in Kenya

Daniel Thuo Ndung'u[1*] (https://orcid.org/0000-0002-5046-5960) and Dr. Samuel O. Onyuma[1] (https://orcid.org/0000-0001-6337-2483).

[1]Department of Commerce, Laikipia University.

To cite this article: Ndung'u and Onyuma (2024) Investor Confidence and the Growth of REITs in Kenya. *Journal of African Real Estate Research,* 9(1), pg.1-27. DOI: https://doi.org/10.15641/jarer.v9i1.1232

Abstract

The introduction of REITs to the securities market was intended to broaden capital markets, allowing them to be used to raise funds for affordable housing while also serving as an alternative investment choice. However, since its introduction, Kenya's REITs market has experienced slow development, and information is scant on how investor confidence may influence the development of REITs. This study investigates how investor confidence influences the growth and development of REITs in Kenya. A predictive correlational research design was employed, while the target population comprised fund managers, stockbrokers investment bankers and property developers. A representative sample size was chosen using stratified random sampling. Primary data was collected using a structured questionnaire. To summarise the findings, descriptive and inferential statistics were employed. Structural Equation Modelling, which incorporated factor analysis, regression analysis and path diagrams, was used to test the hypothesised relationships at a 5% significance level. The results demonstrate that investor confidence has a positive and significant influence on the growth and development of REITs in Kenya. The study concludes that investor confidence about risk and return influences the growth of the REITs market in Kenya, leading to REITs slow development. Continuous engagement sessions between the securities market regulatory authority, REITs Association of Kenya, and investors will enhance market confidence. The study recommends that the Capital Market Authority review the existing market legislation that governs the listing of REITs especially policies on taxation for the issuance of REITs.

Key Words: *Investor Confidence, REITs Development and Growth, Kenya*

[*] Corresponding author email address: thuondungu.dt@gmail.com

1. Introduction

Property investments have grown in popularity over the past two decades, making them an essential asset class in the investment realm. Pham (2013) claims that since the 2000s, the property market has surpassed the money market and shares to become the second-largest investment option, behind fixed-income securities. The three most common categories of listed property products are property firms, property securities funds, and real estate investment funds (Jakpar, 2018). Real Estate Investment Trusts (REITs), one of the listed property assets, have become the primary investment choice for both individual and institutional investors. Thus, REITs have become a significant asset class of investment options for investors who may be searching for alternative investments (Ndung'u & Onyuma, 2020). When REITs were introduced in Kenya in 2015, this idea was welcomed and was seen as a game-changer in the real estate market. However, dissimilar to expectations, REITs have failed to gather pace; hence the focus on REITs in this study.

A REIT is a corporation that owns and operates revenue-generating real estate assets and whose shares are traded publicly like any other stock (Oreagba, 2010). A REIT qualifies for special tax status where profits are taxed at the level of the investor and not at the level of the entity. Like stocks on stock exchanges, REITs sell and invest directly in real estate, via mortgage or property. REITs allow investors an opportunity to have a stake in already existing properties or properties that are being developed (Ndung'u & Onyuma, 2020). First, REITs trade like stocks, thus giving investors exposure to real estate without having to buy and sell physical buildings. Through REITs, small and medium investors are accorded an opportunity to own real estate properties. This could not have been possible if they were to purchase properties directly since they would require a huge sum of money (Cytonn Investments, 2019).
Second, property developers can sell units or shares in a commercial or residential building to investors through the capital market. Third, through REITs, individual investors can own the property market (Africa Business Communities, 2015). Fourth, income REITs (I-REITs) dividends are predictable since most rents paid by occupants are agreed upon prior to a lease agreement. Income REITS give investors an opportunity to invest in diversified properties such as shopping malls, warehouses, office blocks, and hostels, among others. REITs offer competitive returns to investors for the risks they assume (Cytonn Investments, 2019). Fifth, since REITs are listed on the Stock Exchange, they can easily be converted into cash and hence enjoy a feature of high liquidity just as other financial securities traded on the security exchange, but at the same time, their performance is subject to investors' confidence in the market.

Overconfident investors tend to trade in REIT stocks with high levels of firm-specific risk following market gains (Lin, Rahman, & Yung, 2010). Additionally, the overconfidence literature postulates that biased self-attribution causes the degree of overconfidence to vary with realised returns, and overconfident investors tend to trade more than purely rational investors. Confidence is one of the most robust behavioural anomalies in financial markets. By attributing investment gains to their abilities, investors become overconfident and trade aggressively in subsequent periods. Evidence from stock markets shows that overconfidence leads to excessive trading and, subsequently, investment performance (Bao & Li, 2020). Consequently, investor underconfidence in the growth and development of REITs can also aggravate a downward trend in REITs stocks leading to a low appetite for such securities among investors (Ndung'u & Onyuma, 2022).

On the performance of REITs in Kenya, especially since Stanlib Fahari Income REIT was issued, the growth has been very low. The uptake was Ksh 3.6 billion, as opposed to Ksh 12.5 billion that was anticipated. The Income-REIT shed almost 50 percent of its value since the listing, while the share price remained in the range of Ksh 9 and Ksh 14. In the year 2016, Fusion Capital, a property developer, attempted to list a Ksh 2.3 billion Development REIT (D-REIT); however, the listing was unsuccessful. Fusion Capital only achieved a 38 percent subscription with only four investors, against the requirements of seven (Crested Capital, 2016). Fusion Capital quit the D-REIT and opted to raise the money privately. The failure of Stalib Income-REIT and Fusion Capital D-REIT to meet the minimum subscription and investor requirements is a clear indication that there is low performance of REITs in terms of growth and development. This was a focal aspect that the current study sought to examine.
Furthermore, in February 2021, Acorn Holdings, a student hostel developer, targeted raising Ksh 7.5 billion through REITs. The property developer was only able to raise Ksh 2.1 billion (Khusoko, 2020; Accorn Holdings, 2021). Also, the most recent undersubscribed REIT in Kenya is Acorn Holdings REIT, which is noteworthy for the current study because it indicates a disinterest in the new investment vehicles among investors. This prompted the question as to whether the unexpected growth of REITs in Kenya has been a result of investor confidence, which is an external factor outside market control. The current study examined REITs performance in terms of growth and development as opposed to looking at performance in terms of market data fundamentals, which has been the focus of most authors.

2. Literature review

2.1. Global perspective of the REITs market

Historically, the development of REITs markets began in the 1960s, when the United States of America Congress initiated the process of creating Real Estate Investment Trusts meant to provide access to affordable investments in commercial real estate properties (Olanrele, 2014). REITs were introduced to help prospective investors who did not have huge amounts of money required to purchase real estate property but were willing and could buy REITs shares (Naidoo, 2014). Before the REIT regime was introduced in the US, individuals who had a high net worth, as well as institutional investors, dominated the commercial property market (Pham, 2013).
Ernst and Young Global (2019) reported that the concept of REIT across the globe was still gathering pace, with over 37 economies having an active REITs market with an approximate market value of over 1.7 trillion US dollars. According to Statista (2019), by the year 2019, the top ten REITs in the world were all based in the United States. American Tower, situated in Boston, was the largest REIT in the world as of the end of 2019, with a total market value of US$19.11 billion (Macro Trends, 2020).

The major participants in the Asia-Pacific REITs market include Japan, Hong Kong, Australia, and Singapore, as well as smaller economies like Taiwan, Malaysia, and Thailand. The launch of REITs in Japan in 2001 sparked the growth of the REIT industry in Asia-Pacific. Despite global economic uncertainty, Asian REITs have become the most popular among investors. With 63 reported REITs and a market capitalization of 147.2 billion dollars, Japan's REIT market is the largest in Asia-Pacific (Savills Research, 2019).

By the year 2019, Asia-Pacific (APAC) REITs had grown to over 250, and combined market capitalisation had swelled to reach over 330 billion US dollars (Vreeker, 2020). While new REIT markets were also expected to lead to further growth following approved legislation in India, the Philippines- and Thailand, China is still in progress. PWC (2019) observed that the eventuation of REITs in China would be relatively unique in having a strong showing of

residential REIT products in addition to the usual office building and shopping mall-themed ones. In late April 2020, China launched a REIT trial to finance capital-intensive infrastructure projects. According to Bloomberg (2020), the success of the program exposed individual investors to a market potentially worth as much as $3 trillion in the future. Such successes provide positive lessons for other economies, such as Kenya.

In the Gulf region, the first economy to allow the introduction of REITs was Dubai. When the REITs law came into place in 2006, REITs were allowed by the law to manage and own real estate property portfolios. Abu Dhabi, Saudi Arabia, Oman, and Bahrain followed suit with the introduction of REITs markets in 2015. Overall, the United Arab Emirates has a REIT market capitalisation of more than 800 million dollars, which represents only 3% of the total value of the listed real estate firms (Global Ethical Banking, 2019).

2.2. Development of REITs Markets in Africa

In recent years, the African REIT market has emerged. Several countries (South Africa, Ghana, Nigeria, Kenya, and Tanzania) have adapted to global REIT regimes (Ndung'u & Kung'u, 2022). The REIT regime in South Africa was enacted in May 2013. The specifications and rules for the Johannesburg Stock Exchange listings govern the SA-REITs in line with global standards. In their REITs structure, rental income must account for at least 75 percent of the annual earnings, while shareholders receive at least 75% of taxable income. South Africa's real estate market is considered mature in comparison to other African countries (EPRA, 2013). There are about 23 active REITs in South Africa, with a total market capitalisation of around 26.1 billion US dollars (Cytonn Investments, 2019).

The Nigerian Stock Exchange (NSE) (now Nigerian Exchange Group (NGXGROUP) adopted the REITs regulations in 2007. Nigerian REITs (N-REITs), structured as either closed-end or open-end trusts, are asset-backed securities. To qualify for tax-exempt status, N-REITs must have at least 100unit holders. Seventy percent of open-end REITs must consist of real estate asset groups. Closed-end REITs' real estate properties, on the other hand, must account for at least 75% of the total asset value. Both are limited to holding domestic real estate asset groups. At least 75% of annual revenue must come from mortgage rentals and property sales. Only three REITs are listed in Nigeria, with a total market capitalisation of about 151 million US dollars (Press Reader, 2019).

The REIT law was adopted in 1994 by the Ghanaian Stock Exchange Commission. The first company to implement the REIT system was Housing Finance Company Bank in 1995. Since then, Ghana's REIT market has remained relatively undeveloped. According to the Oxford Business Group (2019), Ghana, the oldest REIT market in the African region, has one listed REIT with a market capitalisation of an estimated 11 million US dollars.

In 2011, Tanzania enacted regulations on collective investment schemes and REITs. According to the Collective Investment Schemes, only closed-ended structured funds are authorised by the Capital Markets and Securities Authority (CMSA). Under Rule 51 of the Tanzania Collective Investment Schemes, REIT investments in real estate must surpass the value of the total assets (CMSA, 2011). Watumishi Housing Company (WHC-REIT) established in 2014, is the only residential REIT in Tanzania (Watumishi Housing Company, 2019). According to Oxford Business Group (2019), WHC-REIT had an industry value of approximately 40 million US dollars. Despite the introduction of REITs regulation in the Republic of Rwanda, no REIT

has been registered in that jurisdiction to date. Similarly, in Uganda, the establishment of REITs regulations was done in 2017, but to date, no REIT has been registered (NAREIT, 2019).

2.3. Development of REITs Markets in Kenya

In Kenya, the cost of financing for the growth of the property industry has remained high due to the undersupply of houses for the lowest segment of the economy. The significant costs associated with the development or financing of housing units for the lower segment of the market have made the attainment of this goal extremely difficult. REITs can enhance liquidity in the capital markets and also help raise money to finance affordable housing projects (Ndung'u & Onyuma, 2020). The Nairobi Securities Exchange has introduced innovative products to boost its market capitalisation and grow its number of listed securities. Among the products that have been introduced are SMEs listed in a segment known as the Growth Enterprise Market Segment (GEMS). An incubation and acceleration programme for firms with growth prospects, known as Ibuka, has also been established. In addition, REITs and derivatives—financial vehicles that derive value from underlying assets—have been established.

The introduction of REITs was one of the initiatives intended to grow the NSE listings. The Capital Markets Authority established REITs regulations in 2013. Stanlib Fahari Income-REIT (FAHR) was the first real estate security to be listed on the Nairobi Securities Exchange through a public offering in 2015. The launching of REIT structures was meant to bolster financial inclusion in the capital market. The platform was set up to offer prospective investors a chance to make investments in real estate properties without requiring a huge amount of capital. In return, the investors would enjoy distributable income or dividends from the issuing firm. The objective of establishing a REIT market was to ensure that investors benefited from the income and capital appreciation of the diversified portfolio invested with the pooled funds. The REITs market was also to create a liquid of immovable properties. In Kenya, REITs are structured as trusts as opposed to companies (CMA, 2019).

2.4. Investor Confidence and Development /Performance of REITs

Investor confidence refers to the overall sentiment, opinions, and attitudes that investors have about the financial markets, specific assets, or the economy as a whole. It reflects their belief in the stability and potential for growth within the investment environment. Investor confidence has a big impact on the stock market. Additionally, the investor confidence index is indeed a measure of investor sentiment. It is a metric used to gauge the sentiment or confidence that institutional investors have in the stock market (Ndung'u & Onyuma, 2022).

Demand for stocks and purchasing activity often increases when investor confidence is high. This could encourage an optimistic outlook for the market and raise stock prices. Conversely, when investor confidence is low, there is a decrease in demand and an increase in pressure to sell, resulting in a decline in stock prices. As a psychological factor, investor confidence impacts market trends and overall performance (Gao, Zhao, Sun, & Zhao, 2022).

Freybote and Seagraves (2016) examined whether real estate investors' sentiments influence investment decision-making among investors with a multi-asset focus in the USA. The study focused on pension funds and used bivariate vector autoregression (VAR) in the analysis of the data. To measure investor sentiments, the investor confidence index (Buy-Sell Imbalance) (BSI) measure was constructed. Their study found that institutional investors tend to rely on

their peers in terms of trading decisions, thus displaying herd behaviour. These investors hope and believe that their peers hold significant information that might be important in guiding their investment in the securities market. Further, only institutional investors, such as pension funds holding multi-asset investments, were given focus. Besides pension funds, this study focused on property developers, stockbrokers, and fund managers. Similarly, this study extended their work by evaluating whether investors rely on peers trading with the hope that their peers hold information which could be significant to achieve a positive return in the nascent REITs market in a developing country like Kenya.

Lin, Rahman, and Yung (2010) examined investor confidence in REITs stock trading. Monthly returns were computed for the market from 1990 to 2006. The Vector Autoregression (VAR) model was used in the analysis of the data. The study revealed an increase in investors' overconfidence, which the facts do not support. Compared to rational investors, overconfident investors trade more and are more likely to underestimate risk and retain more risky assets. The study relied on quantitative historical market data (1990-2006) which may not reflect current market conditions or investor behaviour. The current study sought to examine investor confidence using primary qualitative data.

Chan, Erickson, and Wang (2003) observed institutional investors willingness to make investment decisions in REITs. The study revealed that institutional investors tend to outperform individual investors in REIT stocks. Further, the study found that REIT's stock price setting is influenced by institutional investors because of their superior market knowledge. The study focused on investors' confidence by constructing an investor confidence index on the floor of the exchange. Constructing a confidence index might not reflect the opinion of all investors since confidence indexes require a long period to observe trading behaviour. Thus, this study used the attitudinal scale to measure investor confidence in terms of opinions and perceptions in the REITs' nascent industry in Kenya. This study examined investor confidence relating to REITs trading and whether the real estate securities were correctly valued or whether prices could be influenced by either of the two classes of investors. Chen, Chou, and Lin (2019) assessed the relationship between investor sentiments and the performance of stock prices in the US, where the confidence index was used to measure sentiments. A data period from 1970 to 2010 was used. The study selected firms for the sample size from the Centre for Research on Security Prices. The findings indicated that there was a significant link between investor sentiments and the performance of stock prices. The study was inclined towards those firms that were conducting Seasoned Equity Offerings (SEO) and thus this could have limited the generalisation of the results. Whereas the study focused on SEO, the current study focused on REITs.

Huerta, Jackson, and Ngo (2015) examined the impact of investor confidence on real estate investment trust returns in the USA. The study used direct a survey-based measure to categorise sentiments among individual and institutional investors. The study covered the period from the first quarter of 1992 to the third quarter of 2013 and employed panel regression analysis. Daily REITs returns data were obtained and then compounded into quarterly returns. The study found that individual and institutional investors' sentiments are significantly and positively related to REITs returns. The focus of the study was more on REITs sample in terms of size, while the current study focused more on the operational performance of the REITs. Further, the study constructed an investors' sentiment index or proxy, which might not be able to make a distinction between individual and institutional investors' expectations. The present study employed investor sentiment indicators on an attitudinal scale to assess the expectations of both

institutional and individual investors regarding several parameters, including changes in preferences and risk expectations.

Ciochetti, Craft, and Shilling (2002) investigated the influence of institutional investor preferences on portfolio construction in the USA. The study used a multivariate tobit regression approach. REIT-level data was collected from SNL REIT quarterly for the second quarter of the period of 1993 to 1998. The study found that institutional investors tend to invest more in REITs shares and less in private real estate due to the liquidity constraint. Thus, institutional investors' liquidity enhances REIT share uptake. The findings indicate that institutional investors hold varying preferences for REIT stocks compared to retail investors. However, the study was limited to the liquidity constraint aspect of REIT shares in attracting institutional investors. Less focus was given to the expected return of REITs in the long term. Further, the study targeted mutual funds, insurance companies, pension plans, and endowment funds only. Property developers were not included in the study, yet they are key investors in real estate investments. The current study, however, evaluates investor preference with reference to investment in competing securities like equities and fixed-income securities. The current study also evaluates whether investors prefer competing securities based on their potential to offer more attractive returns than REITs.

Further, Cao, Wang, and Zhang (2005) assessed the link between market participation and asset price uncertainty in the USA. The study examined whether uncertainty dispersion in stock pay-offs affects market participation among investors. Using the Knightian approach, the study found that the returns of stocks in the future can be predicted by measuring investors' sentiments. The study also found that, in the presence of model uncertainty, there can be a rise in limited participation. The study focused more on uncertainty dispersion, market participation of stocks in general, and individual investors. Further, the study assumed that investment decisions are made at the beginning of the investment period, a scenario that may not be universally applicable. On the other hand, the current study focuses on REITs by assessing whether investor sentiments relating to the avoidance of uncertainty are relevant in determining the REIT portfolio allocation decision.

Chi, Zhuang, and Song (2012) evaluated the relationship between investors' sentiments and stock performance on the Chinese securities exchange for the period 2004-2008. The study conducted an empirical analysis of individual listed stocks at a quarterly frequency. The study found that inventors' sentiments have a positive relationship with stock returns. Further, the study found that higher investors' sentiments lead to more returns as compared to lower investors' sentiments, which lead to lower returns. In their conclusion, the authors admitted that some of their results were inconsistent with previous findings. However, while Chi et al (2012) concentrated on equity stocks, the current study focused on REIT stocks. Further, the study examined investors' sentiments on the clarity of the exact returns from the REITs underlying assets and scrutinised whether this influences REITs performance.

Johnk and Soydermir (2015) examined the relationship between investors' sentiments and stock performance in the USA. The study, which used capital asset pricing, established that investor sentiments were a significant determinant of stock performance. The study focused on the Global Industry Classification Standards (GICS) sector for the S&P 500 but did not look at the REIT sector, which was the focus of the current study. The study assumed that investor sentiments are not completely irrational, a notion that may not always be correct. This is because sentiments are behavioural aspects whose judgement varies from one investor to the other, a phenomenon that has the potential to affect asset pricing models or parameters.

Devos, Ong, Spieler, and Tsang (2012) carried out a study to examine the link between institutional ownership in REIT and the financial crisis from 2004 to 2010 using multiple regression analysis. The study found that the 2008 global financial crisis made institutional investors move towards REITs, which had lower risks, and this led to an increase in shareholding in older and larger REITs post-GFC. The study was based on numerous REIT companies as the study population with risk control being a key aspect. However, the current study assessed investors' opinions on their perceptions of REITs as a risky investment option with economic conditions in the property market constant.

Freybote (2016) investigated the relationship between real estate investor sentiments and the pricing decisions of US REIT bonds. The study was restricted to REITs that traded in the stock and bond market. Secondary data relating to REIT bond yields and trades were obtained from the TRACE-enhanced database at Wharton Research Data Services (WRDS). The data covered the period between 2010 and 2013, while Prais-Winstern regression was used to correct serial correlation. The study found that investor sentiment was a significant factor in predicting the bond yields of REIT-issuing firms, irrespective of their inclusion in the S&P index or even credit rating. However, while Freybote (2016) utilised secondary data and focused on a developed REIT market, the present study covered a nascent REIT market and used primary data. In addition, while Freybote used bond yield as a dependent variable and constructed a sentiment index from the trading behaviour of investors, the study majorly used an attitudinal scale to measure investor sentiments and the performance of REITs.

Eichholtz and Yönder (2015) examined CEO overconfidence, REIT investment activity and performance. The dataset consisted of U.S. REITs tracked by SNL Financial Real Estate in the period between 2002 and 2010. The study found that REITs led by overconfident CEOs invest significantly more than their non-overconfident counterparts if they have enough discretionary cash. This study focused on CEOs and the performance of REITs while the current study focused on investors' confidence and the development of REITs.

Empirical studies reviewed showed a relationship between investors' confidence and the performance of REITs in the context of developed REITs markets. Furthermore, the reviewed studies measured investors' sentiments by constructing confidence level indexes through observation of trading behaviour or trends in the stock exchanges. The current study examined investors' opinions and attitudes rather than constructing an institutional or retail investors' confidence level index, which might not have been appropriate in this study. This is because it would not have been possible to observe the live trading behaviour of investors on the securities exchange.

In addition, from the reviewed literature, mutual funds flows have been used as a substitute for confidence. The argument from the studies was that, since individual investors re-allocate their funds across various mutual funds, individual confidence can be measured by observing which mutual funds have inflows and outflows and relating these confidence levels to different securities by observing the holding of mutual funds. Although individual customer CDS accounts are a reliable source for investors' confidence, it would not have been possible to observe the customers' accounts in the context of this study. Due to privacy regulations and ethical considerations, accessing and observing live trading of investors' customer CDS accounts would have raised significant legal and ethical barriers. In measuring investors' confidence, the current study used an attitudinal scale to analyse how investors' opinions, views, and perceptions influence the growth and development of REITs.

3. Methodology

The sampling frame for this study comprised twenty-seven fund managers, twenty-five stockbrokers and investment bankers, seventy-nine property developers, four corporate members of the REITs Association of Kenya, and one listed REIT at the Nairobi Securities Exchange. Table 1 presents the target population distribution.

Table 1: Target Population Distribution for Units of Observation

Category	Target Population
Fund Managers	27
Stock Brokers and Investment Banks	25
Property Developers	79
MMC Africa	1
Viva Africa Consulting	1
Mboya Wangong'u & Waiyaki Advocates	1
Novare Equity Partners	1
Listed Income-REIT (STANLIB Fahari)	1
Total	**136**

Source: (REITs Association of Kenya, 2022; Capital Markets Authority, 2022)

A representative sample size was established using stratified random sampling. The key stakeholders in the REITs industry were divided into sub-groups based on their homogeneity. The sample size was calculated using Isreal (1992) formula. In using this formula, the study considered the variances of the subpopulation and strata before an estimate of the variability in the units of observation as a whole was made. Further, the formula is the most ideal to use when the only thing known about the sampling population is its size. The formula is as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where n is the sample size, N is the target population, and e is the margin error (0.05 for a 95 percent confidence level). By substituting these values into the formula, the sample size was calculated as follows:

$$n = \frac{136}{1 + 136(0.05)^2} = 101$$

Strata were formed based on individual categories and the allocation of sample size proportional to the size of each stratum, was then made. Further, purposive sampling was used to select two respondents from each of the 101 entities. This made the final number of respondents (units of analysis) to be 202. According to Hair, Black, Babin, and Anderson (2010), factor analysis is suitable when the sample size is over 100. This study thus employed factor analysis. Experience in REITs matters was used as a criterion for the respondents to be included in the sample size. The more experienced the respondents were with REITs matters, the higher the chances of being included in the sample size. Primary data, such as opinions on investor confidence and the growth of REITs, was collected using a structured questionnaire. A total of 166 questionnaires, out of the 202 distributed, were filled and returned by respondents. This amounted to about 82 percent response rate. The response rate was enhanced

by following up on booked appointments via phone calls and the physical administration of the research instrument. The reliability and validity of the data instrument were ascertained through pretesting, Cronbach alpha and factor analysis. Cronbach alpha test was used to ascertain internal reliability. According to Sekeran (2003), an alpha value of 0.8 is favourable, 0.7 is acceptable, and 0.6 is weak. The variables returned Cronbach alpha values greater than 0.8, indicating that the instrument had good internal consistency. Table 2 presents the reliability test results.

Table 2: Research Instrument Reliability Results

Constructs	Cronbach Alpha
Investor Confidence	0.892
Growth and Development of REITs	0.823

Furthermore, convergence and discriminant validity were ascertained through confirmatory factor analysis. Convergence validity measures how much the indicators are coming together to determine the latent variable. Measurement scales exhibit convergent validity if the Average Variance Extracts (AVEs) loadings are above 0.5 (Hair et al., 2010). The constructs in the model had AVEs above 0.5, indicating convergent validity, as shown in Table 3.

Table 3: Average Variance Extracts

Construct	Average Variance Extracted
Investor Confidence	0.530
Growth and Development of REITs	0.581

Discriminant validity measures how far much a latent variable or construct discriminates against or differs from the other construct. The square root of AVEs was compared with the correlation between two constructs to determine discriminant validity. The square root of AVE, according to Hair et al. (2010), should be greater than the correlation between two latent constructs. From the results, all the discriminant values (Investor Confidence = 0.728 and Growth and Development of REITs = 0.693, respectively) were greater than the correlation of a pair of latent constructs. This was a confirmation that discriminant validity was exhibited in the variables. Table 4 presents the results.

Table 4. Latent Variable Correlations Against Discriminant Validity

Variable	Investor Confidence	Growth and Development of REITs
Investor Confidence	**0.728**	
Growth and Development of REITs	0.537	**0.693**

3.1. Data analysis

Exploratory Factor Analysis (EFA) was used to assess the convergence and independence of the constructs in their contribution to the study. Pallant (2011) suggests eliminating indicators

with a commonality value of less than 0.3 from the study due to their incompatibility with other indicators. Also, Kaiser-Meyer-Olkin (KMO) and Bartlett's test of sphericity were used to determine the appropriateness of factor analysis before proceeding. Factor analysis should be performed when the KMO value is larger than 0.5 and the value of Bartlett's test is less than 0.05 (Shrestha, 2021). Moreover, Confirmatory Factor Analysis (CFA) was employed in evaluating whether the measurement items accurately measured the specified constructs, with indicators that contributed successfully to the study being retained for further Structural Equation Modelling. To evaluate the fit of the data model, the study utilised the adjusted Chi-Square (CMIN), Goodness of Fit Index (GFI), Comparative Fit Index (CFI), Normed Fit Index (NFI) and Root Mean Square Error (RMSEA). The opinions of the respondents on statements relating to the variables under study were analysed using percentages and Likert mean values.

4. Results and discussion

This section presents the results and discussion relating to investor confidence, the growth and the development of REITs.

4.1. Investor Confidence Descriptive Results

Respondents were asked to indicate their level of agreement on a scale of 1-5 on statements relating to investor confidence. Table 5 shows the results.

Table 5: Investor Confidence Descriptive Results

Statements N=166	**Strongly Agree-5 %**	**Agree-4 %**	**Moderate-3 %**	**Disagree-2 %**	**Strongly Disagree-1 %**	**Mean**
There has been REITs volatility which has been a result of investor's confidence in the market	28.9	33.7	21.1	8.4	7.8	3.674
Avoidance of uncertainty is relevant in determining REIT portfolio allocation decision	24.1	34.7	32.7	3.6	4.8	3.686
REITs are perceived as risky investment options by investors	30.1	30.7	21.7	10.2	7.2	3.662
REITs stocks are trading at a sound value (that's they are correctly valued)	29.5	39.8	21.7	6.6	2.4	3.873
There is clarity on the exact returns from the underlying assets	28.3	39.2	24.7	6.0	1.8	3.861
Uptake of REITs has remained low over poor dividend yields	28.3	38.0	19.3	10.2	4.2	3.759

Prices of REITs have remained low over poor dividend yields	23.5	28.3	25.3	14.5	8.4	3.439
REITs have a promising durable stream of growing dividends which will reward investors over time	22.5	29.5	25.9	16.3	5.4	3.481
Government securities (Treasury bills and bonds) are preferred because they offer relatively attractive returns than REITs	15.7	25.9	34.3	13.9	10.2	3.228
Investing in companies' equities (stocks) offer relatively attractive returns than REITs	20.5	33.1	29.5	12.7	4.2	3.530
As capital allocation signals, investors rely on peer trading under the perception that peers may hold superior knowledge	33.1	40.4	15.7	7.8	3	3.927
REITs underlying assets (Residential and commercial real properties) are correctly valued	8.4	19.3	44.0	12.7	15.7	2.921
REITs Investors require an understanding of the operations of the Stock Market to trade in REITs	9.0	18.7	41.0	12.0	19.3	2.861
Despite the rise in property prices, people's personal income has not kept pace. As a result, there is a good chance that property prices in Kenya will fall as potential investors find it difficult to engage in the market	6.0	19.3	33.7	10.8	30.1	2.602
Investors have sufficient confidence in the capital markets which has boosted the capital markets' product uptake	7.8	9.0	34.3	20.5	28.3	2.475
Average mean score						3.59

Table 5 shows that the majority of respondents (62.6%) were in agreement that REIT volatility has been caused by investors' under-confidence. Further, 21.1% of the respondents held a neutral opinion regarding this statement (mean = 3.67). The results agree with those of Chakraborty and Subramanian (2020), who examined the link between market volatility and investor sentiments in India. Furthermore, there was agreement among respondents (58.8%) that the avoidance of uncertainty is relevant in determining REIT portfolio allocation decisions, while 32.7% of the respondents held a neutral opinion on this statement (mean = 3.68). These

results agree with those of Lin, Yung, Marsh, and Chen (2018), who examined the link between securities returns and market uncertainty in the USA and found that uncertainty in stock markets influences investors' asset portfolio formation.
Most respondents (60.8%) agreed that REITs are perceived as risky investment options by investors, while 21.7% held a neutral opinion (mean = 3.66). Most respondents (69.3%) agreed that REIT stocks are correctly valued, while 21.7% held a neutral opinion on this statement (mean = 3.87). The findings are consistent with those of Amiri, Ravanpaknodezh, and Jelodari (2016), who examined the relationship between valuation methods and the intrinsic value of listed firms in Iran. The study found that the stock valuation models employed have a significant influence on the prices of the listed stocks.

Furthermore, most respondents (67.5%) agreed that there was clarity on the exact returns from the underlying assets, while 24.7% had a moderate opinion (mean = 3.86). Additionally, 66.3% of the respondents agreed that uptake of REITs has remained low over poor dividend yields, while 19.3% showed neutrality (mean = 3.75). The results are consistent with those of Kulab (2017), who found that there is a positive relationship between expected returns from REITs and the actual returns from the underlying property in Thailand.

Moreover, a fair majority of respondents (51.8%) agreed that prices of REITs have remained low over poor dividend yields, while 25.3% showed neutrality (mean = 3.43). The results are consistent with those of Jalil, Sheauting, Sapri, Fadzli, and Chai (2017), who examined property-type allocation in Malaysia and found that REITs have the potential for significant growth and a trend of decreasing dividend yields. Most respondents (52%) agreed that REITs have a promising durable stream of growing dividends that will reward investors' time, while 25.9% showed neutrality on this statement (mean =,3.48). The results agree with those of Clayton and Mackinnon (2001) who found that REIT stocks that are dominated by institutional investors have superior performance than those dominated by individual investors in the USA. Many of the respondents (41.6%) agreed that treasury bills and treasury bonds are preferred because they offer relatively more attractive returns than REITs, while 34.3% held a neutral opinion on this statement (mean=3.22). Most respondents (53.6%) agreed that investing in companies' equities offers relatively more attractive returns than REITs, with 29.5% holding a neutral opinion (mean = 3.53). Similarly, Ntuli and Akinsomi (2017) examined the performance of REITs in South Africa vis-a-vis other securities. The results indicated that treasury bills and bonds offered more attractive returns than REITs and were therefore preferred by investors. Further, Freybote (2016) found that investor sentiments were a significant factor in predicting the bond yields of REIT-issuing firms in the USA. Most respondents (73.6%) agreed that investors rely on peer trading as capital allocation signals, under the perception that peers may hold superior information (mean = 3.92). The results are consistent with those of Freybote and Seagraves (2016), who reported that in the USA, investors tend to rely on their peers in making trading decisions, thus displaying herd behaviour. These investors hope and believe that their peers hold significant information that might be important in guiding their choice of investment in the securities market.

Most respondents (44%) were undecided about the statement that REITs' underlying assets are correctly valued (mean = 2.92). There was neutrality in opinion among most respondents (41%) on the statement that REITs investors require an understanding of the operations of the stock market to trade in REITs, 31.3% of the respondents disagreed, while 27.7% agreed (mean = 2.86). There was disagreement among most respondents (40.9%) that, despite the rise in property prices, people's income has not kept pace. As a result, there is a good chance that property prices in Kenya will fall as potential investors find it difficult to engage in the market.

Additionally, 33.7% of the respondents showed a neutral opinion on this statement, while 25.3% agreed (mean = 2.60). Moreover, there was disagreement among 48% of the respondents on the statement that investors have sufficient confidence in the capital markets, which has boosted capital market product uptake. Further, 34.3% of the respondents showed neutrality in this statement (mean = 2.47). The findings agree with those of Nurick, Boyle, Morris, Potgieter, and Allen (2018) who examined the uptake of residential stocks with South African REITs and found that there was low uptake of residential stocks due to inadequate confidence by investors in the financial markets. On average, most respondents agreed with the investor confidence statements (mean = 3.59).

4.2. Growth and Development of REITs Descriptive Results

Respondents were asked to indicate their level of agreement on a scale of 1-5, on statements relating to the growth and development of REITs as shown in Table 6.

Table 6: Growth and Development of REITs - Descriptive Results

Statements N=166	**Strongly Agree-5 %**	**Agree-4 %**	**Moderate - 3 %**	**Disagree-2 %**	**Strongly Disagree-1 %**	**Mean**
There has been an increase in the number of investors subscribing to REITs due to adequate investor awareness	26.5	39.2	25.3	7.2	1.8	3.814
REITs have continually offered easy access to the real estate property market at relatively low transaction costs	25.9	47.6	22.3	3.0	1.2	3.94
There is growth in residential projects (students' hostels) being funded through REITs	28.3	36.7	30.1	4.2	0.6	3.876
There is a growing demand among property developers and investment managers (Promoters of REITs) to issue Development REITs meant to diversify real estate funding	22.3	34.3	26.5	13.3	3.6	4.192
Appetite for REITs has grown since the value of real estate properties keeps on appreciating, thus minimising the risks of capital loss	33.1	37.3	20.5	7.2	1.8	3.924
REITs uptake has attained a critical mass necessary to create liquidity in the capital market	25.9	22.3	31.3	15.7	4.8	3.488
Real estate indices in Kenya are quite high	15.1	26.5	35.5	13.9	9.0	3.248

Investments in REITs have delivered strong long-term total returns to investors	25.9	37.3	22.9	10.8	3.0	3.72
There has been increased competitive price discovery for residential properties (apartments) occasioned by REITs-backed real estate projects	24.1	39.2	27.1	9.0	0.6	3.772
There has been increased competitive price discovery for commercial properties (warehouses, offices, malls, shops) occasioned by REITs-backed real estate projects	28.3	33.7	28.3	9.6	0	3.804
Due to rental defaults and low occupancy rates, REIT returns have declined, resulting in low earnings	20.5	44.6	25.3	8.4	1.2	3.748
REITs have delivered competitive returns, thus attracting more institutional investors	17.5	28.9	31.9	15.7	6.0	3.362
REITs have delivered competitive returns, thus attracting more retail investors	19.3	27.7	24.1	19.3	9.6	3.278
REITs have provided investors with portfolio diversification since investors can now invest in diverse portfolios containing residential buildings, office blocks, industrial facilities, and shopping malls	14.5	25.9	33.1	19.3	7.2	3.212
REITs have been recording increased dividend yields	16.9	19.3	36.1	18.1	9.6	3.158
Average Mean Score						3.82

The findings in Table 6 show that most respondents (65.7%) agreed that there has been an increase in the number of investors subscribing to REITs due to adequate investor awareness (mean=3.81). Most respondents (73.5%) agreed that REITs have continually offered easy access to the real estate property market at relatively low transaction costs (mean = 3.94). Most respondents (65%) agreed that there was growth in residential projects (students' hostels) being funded through REITs (mean = 3.87). The majority (56.6%) of respondents agreed that there was a growing demand among property developers and investment managers (promoters of REITs) to issue development REITs meant to diversify real estate funding (mean = 4.19). Most respondents (70.4%) agreed that the appetite for REITs has grown since the value of real estate properties keeps on appreciating, thus minimising the risks of capital loss (mean = 3.92).

A fair majority of the respondents (48.2%) agreed that REITs uptake had attained the critical mass necessary to create liquidity in the capital market (mean = 3.48). Most respondents (41.6%) agreed that real estate indices in Kenya were quite high (mean = 3.24). There was agreement among most respondents (63.2%) that investment in REITs has delivered strong

long-term total returns to investors (mean = 3.72). Additionally, 63.3% of the respondents agreed that there has been increasingly competitive price discovery for residential properties occasioned by REITs-backed real estate projects (mean = 3.77). Most respondents (62%) agreed that there has been increasingly competitive price discovery for commercial properties occasioned by REITs-backed real estate projects (mean = 3.80). Most of the respondents (65.1%) agreed that due to rental defaults and low occupancy rates, REIT returns have declined, resulting in low earnings (mean = 3.74).

Further, while some respondents (46.4%) agreed that REITs have delivered competitive returns, thus attracting more institutional investors (mean = 3.36), others (47%) agreed that REITs have delivered competitive returns, thus attracting more retail investors (mean = 3.27). Additionally, 40.4% of the respondents agreed that REITs have provided investors with portfolio diversification since investors can now invest in a diverse portfolio containing residential buildings, office blocks, industrial facilities, and shopping malls (mean = 3.21). Further, 36.2% of the respondents agreed that REITs have been recording increased dividend yields while 36.1 % of the respondents held a neutral opinion (mean = 3.15). On average, most respondents agreed with the growth and development of REITs statements (mean = 3.82).

4.3. Exploratory Factor Analysis

4.3.1. Sample Adequacy Results for Investor Confidence

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was used to determine whether the data was eligible for factor analysis.

Table 7: KMO and Bartlett's Test for Investor Confidence

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.882
Bartlett's Test of Sphericity	Approx. Chi-Square	610.351
	Df	21
	Sig.	.000

The KMO index ranges from 0 to 1, with an optimal value for factor analysis being 0.5 (Byrne, 2006). Further, factor analysis is only appropriate when Bartlett's Test of Sphericity is significant at a 95% confidence level. The KMO for investor confidence was 0.882. A factor analysis was also possible because Bartlett's test of sphericity was statistically significant ($p<0.05$). The study therefore proceeded with factor analysis. Table 7 presents the results.

4.3.2. Total Variance Explained for Investor Confidence

Table 8: Total Variance Explained for Investor Confidence

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.251	60.727	60.727	4.251	60.727	60.727
2	.875	12.500	73.227			
3	.530	7.579	80.806			
4	.442	6.319	87.125			
5	.358	5.108	92.233			
6	.284	4.058	96.291			
7	.260	3.709	100.000			

As indicated in Table 8, the number of factors that needed to be extracted was limited to one (1). The extracted component explained 60.727 percent of the variation in the construct. From the findings, sums of squared loadings for other components ranged from 4.251 to 0.260. Their contribution to the explanation of the variance was also considered significant.

Table 9: Component Matrix for Investor Confidence

Measurement Items	Component 1
IS1-REITs stocks are trading at a sound value (that is, they are correctly valued)	.724
IS2-There is clarity on the exact returns from the underlying assets	.709
IS3-Uptake of REITs has remained low over poor dividend yields	.762
IS4-Prices of REITs have remained low over poor dividend yields	.845
IS5-REITs has a promising durable stream of growing dividends which will reward investors over time	.858
IS6-Government securities (treasury bills and bonds) are preferred because they offer relatively attractive returns than REITs	.789
IS7-Investing in companies' equities (stocks) offer relatively attractive returns than REITs	.755

Investor confidence was measured using opinion measurement items on a Likert scale. The measurement items were skilfully structured to ensure the content validity of the construct. This is because the measurement items were assumed to be related, thus measuring one variable, which is investor confidence. Thus, the literature review generally discusses investor confidence as a single variable as opposed to sub-variables or indicators.
Since the measurement items converged validly to their respective components (constructs), through their factor loadings, they were given names. They were confirmed to be measurable observed indicators for the constructs. Investor confidence measures included risk-return sentiments.

The coefficients or loadings used to express the item in terms of the components are found in the matrix in Table 9. Pattern matrix loading indices range from 0 to 1.0, with 0 indicating no relationship between variables and 1.0 showing a perfect relationship between variables and a factor pattern. According to Byrne (2006), the average factor loading should be more than 0.7. According to the analysis, the factor loadings range from 0.709 to 0.858. According to the results, only seven elements met the loading threshold of 0.7 and were thus preserved for further analysis.

4.3.3. Sample Adequacy Results for Growth and Development of REITs

Table 10: KMO and Bartlett's Test for Growth and Development of REITs

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.818
Bartlett's Test of Sphericity	Approx. Chi-Square	273.056
	Df	10
	Sig.	.000

As shown in Table 10, the KMO value of 0.818 and Bartlett's Test of Sphericity significance level revealed that the sample from the population was appropriate, and that factor analysis was acceptable.

4.3.4. Total Variance Explained for Growth and Development of REITs

Table 11: Total Variance Explained for Growth and Development of REITs

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.932	58.649	58.649	2.932	58.649	58.649
2	.690	13.793	72.442			
3	.559	11.173	83.615			
4	.463	9.266	92.882			
5	.356	7.118	100.000			

Table 11 demonstrates that the factor loadings were evaluated using the principal component analysis extraction method. The fixed number of factors extracted was selected to be 1. With an Eigenvalue greater than 1 and extraction sums of squared loadings greater than 1, a maximum of one component was extracted. For this factor, the extraction sums of squared loadings were 2.932. The factor explained 58.649 percent of the variance in the construct. The other components' sums of squared loadings ranged from 2.932 to 0.356. The capacity of these other variables to explain the variance in the variables was rated highly significant.

Table 12: Component Matrix for Growth and Development of REITs

	Component
Measurement Items	**1**
RP1-There is growth in residential projects (students' hostels) being funded through REITs	.728
RP2-Appetite for REITs has grown since the value of real estate properties keeps on appreciating, thus minimising the risks of capital loss	.798
RP3-There has been increased competitive price discovery for residential properties (apartments) occasioned by REITs backed real estate projects	.746
RP4-There has been increased competitive price discovery for commercial properties (warehouses, offices, malls, shops) occasioned by REITs backed real estate projects	.817
RP5-REITs returns have decreased due to rental defaults and low occupancy rates which have yielded low income	.737
Extraction Method: Principal Component Analysis.	

Growth and development of REITs were measured using opinion measurement items on a Likert scale. The measurement items were skillfully structured to ensure the content validity of the construct. The assumption was made that the measurement elements were interrelated, thereby assessing a single variable, namely the performance of REITs in terms of their growth and development. Thus, the literature review generally discusses the performance of REITs as a single variable as opposed to sub-variables or indicators.

Since the measurement items converged validly to their respective components (constructs), through their factor loadings, they were given names. They were confirmed to be measurable, empirically observed indicators for the constructs. Thus, performance measures of REITs included uptake and return of REITs. As presented in Table 12, the component matrix factor loadings for the performance of REITs are shown, ranging from 0.728 to 0.817. The results show that five items passed the 0.7 loading threshold and were thus retained for study.

4.4. Confirmatory Structural Modelling and Hypothesis Testing

Studies have utilised both absolute and incremental fit indices to determine if the model was a good fit for the data (Hair et al., 2010). Therefore, before hypothesis testing, CMIN, CM/DF, GFI, CFI, NFI, and RMSEA were used as techniques for measuring model fit. Regression weights were used to assess each indicator's contribution to its individual component. Furthermore, the critical value of 1.96 was used to determine whether the models were significant at a significance level of 0.05.

4.4.1. Model Test Fit Results for Investor Confidence

The study utilised both absolute and incremental fit indices to determine if the model was a good fit for the data. The study utilised both absolute and incremental fit indices to determine if the model was a good fit for the data. The model fit statistics in Table 13 reveal that the model fit was generally satisfactory.

Table 13: Model Fit Statistics Results for Investor Confidence

Model	CMIN	CMIN/DF	P value	GFI	CFI	NFI	RMSEA
Statistic	137.241	2.589	0.000	0.874	0.910	0.863	0.098
Cut-off	P<0.05, cmin/df ratio range 1 to 3			≥0.8	≥0.8	≥0.8	≤0.05 good ≤0.08 excellent ≤0.1 acceptable

The basic test used was the chi-square goodness of fit test (CMIN). The acceptable chi-square index degree of freedom ratio (CMIN/DF) should be between 1.0 and 3.0. The chi-square p-value should be less than 0.05. Table 13 shows a chi-square statistic of 137.241 with a probability value of 0.000, which was less than the conventional probability value of 0.05, and a CMIN to DF ratio of 2.589, which was within the acceptable range of 1 and 3. This indicated that the model significantly fitted the data.

According to Schumacker and Lomax (2004), chi-square goodness-of-fit values are particularly sensitive to sample size. Hence, other fit statistics should be used to test the model fit for the data, such as absolute and incremental fit indices. This was the case in the current study. The current study employed RMSEA and GFI for absolute fit indices, and NFI and CFI for incremental fit indices. The model's fit indices were used to determine whether it was adequate (Browne & Cudeck, 1992).

RMSEA is a statistic that assesses how well a model fits the data while accounting for the error of approximation. The RMSEA values range from 0 to 1, with a lower RMSEA value indicating a better model fit. An RMSEA of less than 0.05 is considered good, 0.05 to 0.08 is excellent, and 0.08 to 0.10 is acceptable (Hu & Bentler, 1999). In Table 13, the RMSEA score was 0.098, suggesting that the model fitted the data significantly because the value was less than the permissible threshold. GFI is a statistic that assesses how well the hypothesised model suits the covariance matrix observed. The fit indexes of the GFI vary from 0 to 1. The coefficients must be greater than or equal to 0.8 (McDonald & Ho, 2002). According to the results in Table 13, the GFI value was 0.874, which was within the specified threshold of 0.8. This proved that the model was valid and fit for analysis. CFI is one of the most extensively used fit indices because it is not affected by the sample size. CFI fit indexes range from 0 to 1, with values of 0.8 or higher considered acceptable (Tabachnick & Fidell, 2013). According to Table 13, the CFI value was 0.910. This suggested that the model fitted the data fairly well.

The Normed Fit Index (NFI) compares the sample covariance matrix to a distinct model in which all latent variables are assumed to be uncorrelated. The values of this statistic range from 0 to 1, with values closer to 1 indicating a good fit. An NFI score of 0.8 or higher is regarded as indicative of a perfect fit (Hu & Bentler, 1999). From the results in Table 13, the NFI value was 0.863, a sign that the model fitted the data. The overall findings of the model fit statistics show that the model fit was typically adequate.

4.4.2. Influence of Investor Confidence on the Growth and Development of Real Estate Investment Trusts in Kenya

The study's major objective was to evaluate how investor confidence affected the growth and development of real estate investment trusts in Kenya.

Table 14: Factor Loadings for Investor Confidence

Measurement Items	Component/ Loadings
IS1-REITs stocks are trading at a sound value (that is, they are correctly valued)	.705
IS2-There is clarity on the exact returns from the underlying assets	.674
IS3-Uptake of REITs has remained low over poor dividend yields	.748
IS4-Prices of REITs have remained low over poor dividend yields	.792
IS5-REITs has a promising, durable stream of growing dividends which will reward investors over time	.829
IS6-Government securities (treasury bills and bonds) are preferred because they offer relatively attractive returns than REITs	.734
IS7-Investing in companies' equities (stocks) offers relatively more attractive returns than REITs	.730

Exploratory factor analysis was conducted before utilising structural models to examine if the retrieved indicators expressing investor confidence had significant loadings on the latent construct. Table 14 shows that factor loadings range from 0.674 to 0.829, showing high convergence because they were all greater than 0.7 and so perfectly matched to a factor pattern

(Byrne, 2006). As a result, the indicators were employed in the analysis of the structural model fit that followed.

Table 15: Regression Weights and Critical Ratio (CR)Values for Investor Confidence and Growth and Development of REITs

			Estimate	S.E.	C.R.	P
Performance	<---	Sentiments	.396	.078	5.107	***
IS7	<---	Sentiments	1.000			
IS6	<---	Sentiments	1.174	.127	9.220	***
IS5	<---	Sentiments	1.287	.127	10.134	***
IS4	<---	Sentiments	1.343	.134	10.035	***
IS3	<---	Sentiments	1.003	.119	8.454	***
IS2	<---	Sentiments	.791	.103	7.675	***
IS1	<---	Sentiments	.855	.107	8.015	***

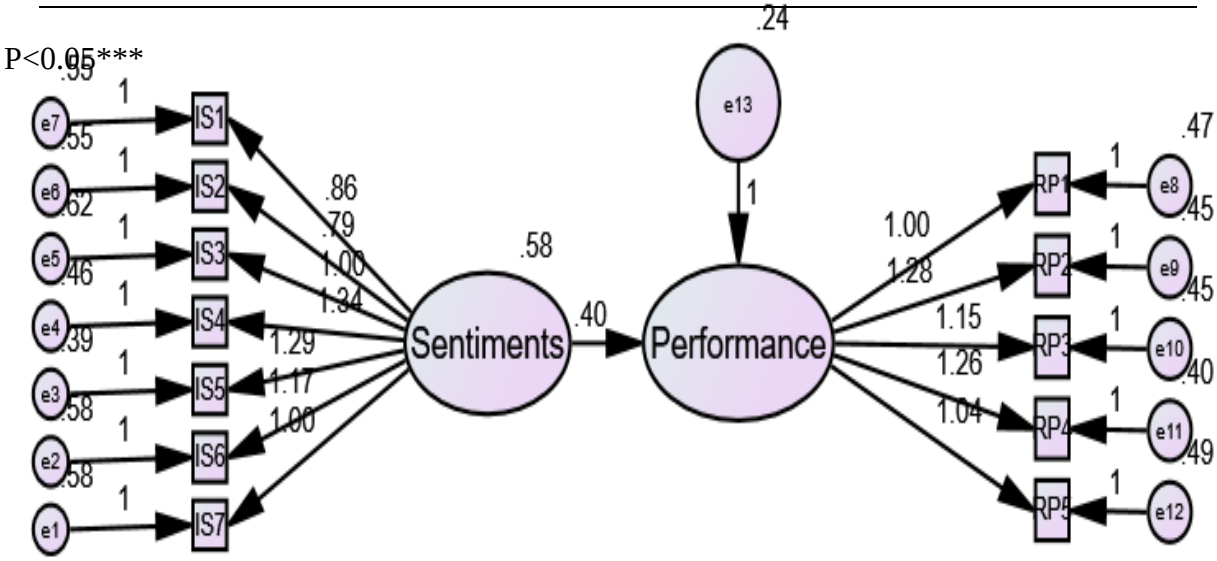

Figure 1: Path Coefficients for Investor Confidence (market–-risk sentiments) and the Growth and Development of REITs in Kenya

There is a significant connection between investor confidence and the growth and development of REITs in Kenya, as indicated in Figure 1's path diagram and Table 15. The standard path coefficient on the influence of investor confidence on the growth and development of REITs in Kenya was found to be significant ($\beta = 0.40$, calculated t-value = 5.107, $P<0.05$). The C.R. of the coefficient of investor confidence was found to be greater than 1.96. This suggests that an additional decrease in the growth and development of REITs was linked to a 0.40 unit increase in negative risk-return sentiments. Thus, the study concluded that there is a statistically significant influence of investor confidence on the growth and development of REITs in Kenya.

The results agree with those of Chen, Chou, and Lin (2019), who assessed the relationship between investor sentiments and the performance of stock prices in the USA. The results showed that there was a significant positive connection between investor sentiments and the performance of stock prices. These results are also consistent with those of Hiriyappa (2008), who found that investor sentiments have an impact on the performance of financial securities. Further, they also support Chan, Erickson, and Wang's (2003) findings that institutional investors' sentiments have a significant effect on the performance of REITs.

Further, the results also agree with those of Das, Freybote, and Marcato (2014), who investigated sentiment-induced institutional trading behaviour and asset pricing in the REIT market in the USA and found that institutional investors' sentiment in the un-securitised commercial real estate market affects their trading behaviour in the securitized market. Additionally, the results agree with those of Huerta, Jackson, and Ngo (2015), who examined the impact of investor sentiments on real estate investment trust returns in the USA and reported that individual and institutional investors' sentiments are significantly and positively related to REITs returns. San, Heng, and Pong (2011) evaluated the performance of Malaysian REITs from 2005-2010 and found that poor perception among institutional investors was the cause of the slow growth of Malaysian REITs.

The contribution of each of the investor sentiment indicators to the latent construct was tested using regression weights (investor sentiments). According to the regression weights results in Table 15, each unit rise in investor sentiment was related to an increase in IS1 of 0.855 units, indicating that REITs are correctly valued. Since the calculated t-value of 8.015 was greater than 1.96, there is a significant positive link between IS1 and investor sentiments. This implies that there is a positive link between the statement that REITs are correctly valued and investor sentiments. The results are in agreement with those of Amiri, Ravanpaknodezh, and Jelodari (2016), who examined the relationship between valuation methods and the intrinsic value of listed firms in Iran and found that the stock valuation models employed have a significant influence on the prices of the listed stocks.

IS2 shows that for a single unit rise in investor sentiments, there was a 0.791 rise in clarity on the exact returns from the underlying assets. The corresponding calculated t-value was 7.675, which was higher than 1.96, this showed that there existed a significant association between IS2 and investor sentiments. The results show consistency with those of Kulab (2017), who found that there is a positive relationship between expected returns from REITs and the actual returns from the underlying property in Thailand.

IS3 indicates that for every unit rise in investor sentiment, there was a 1.003 increase in REIT uptake over poor dividend yields. The calculated t-value was 8.454, and since it was more than 1.96, it indicated that IS3 and investor sentiments had a substantial positive association. For IS4, a unit increase in investor sentiment was linked to 1.343 and a calculated t-value of 10.035, indicating that low prices of REITs remain over poor dividend yields. Because the calculated t-value is more than 1.96, this indicates that there is a considerable positive relationship between IS4 and investor sentiments. In addition, the findings show that a unit increase in investor sentiment is linked to a 1.287 increase in IS5 (REITs have a promising, durable stream of growing dividends which will reward investors over time. The calculated t-value of 10.134 for the IS5 estimate was greater than 1.96, indicating a strong positive association between IS5 and investor sentiments. The results are consistent with those of Jalil, Sheauting, Sapri, Fadzli, and Chai (2017), who examined property-type allocation in Malaysia and found that REITs

had potential for significant growth, although there was a trend towards decreasing dividend yields.

Government securities (treasury bills and bonds) are chosen because they give comparatively favourable returns compared to REITs, and a unit increase in investor sentiments is associated with a 1.174 increase in IS6. Since the calculated t-value of the IS6 estimate was greater than 1.96, there was a significant positive link between IS6 and investor sentiments. Furthermore, a unit increase in IS7, indicating that investing in company equities offers relatively better returns than REITs, was connected with a unit increase in investor sentiment. The regression weight was set to 1 and not estimated, indicating that IS7 and investor sentiment had a perfect relationship. The results agree with those of Ntuli and Akinsomi (2017), who examined the performance of REITs in South Africa against stocks, Treasury bills, bonds and other listed property in a mixed asset portfolio. The results indicated that treasury bills and bonds offer more attractive returns than REITs, thereby being preferred by most investors.

At the 0.05 significance level, all of the investor sentiment indicators regression weights had estimated calculated t-values greater than the threshold t- t-value of + or -1.96. As a result, the indicators were shown to be highly associated with investor sentiments, indicating their convergent validity.

5. Conclusion

Investor confidence has a considerable influence on the growth and development of Real Estate Investment Trusts in Kenya, according to the findings. Furthermore, investors have sufficient confidence in the capital markets, but this has not boosted the capital markets product uptake. It can be concluded that investor sentiments, majorly risk and return, are influencing the growth and development of the REITs market in Kenya, leading to REITs unexpected development. Risk and return sentiments have made REITs issuers shy away from issuing new securities in the market. Continuous engagement sessions between the security market regulatory authority, REITs Association of Kenya, and investors will enhance market confidence, thus lowering risk-return sentiments.

The findings of this study make a significant contribution to knowledge about REITs performance. The study found that there exists a significant positive causal relationship between risk-return sentiments and the growth and development of REITs in Kenya. These findings form a fundamental basis for existing scholars who may wish to study the influence of risk-return sentiments and the performance of REITs. Further, the study bridges the knowledge gap on the influence of investor confidence and the growth and development of REITs, an area with inadequate empirical literature.

The findings also make a significant contribution to Behavioural Portfolio Theory. According to this theory, investors' behavioural aspects play a significant role when they make investment decisions. Such decisions include portfolio construction and the selection of assets. The theory opines that investors are inclined to various psychological behaviours that lead them to cognitive errors in portfolio formation. From the current study findings, it can be implied that risk-return sentiments, which are behavioural perception characteristics, play a significant role in portfolio formation.

One limitation is the exclusive focus on fund managers, stockbrokers, investment bankers, and property developers as the primary respondents. Future studies could expand this scope to include a broader range of stakeholders, such as individual investors and regulatory bodies, providing a more comprehensive understanding of investor sentiment. Additionally, the study relied on Likert scale data and employed Structural Equation Modelling (SEM), which, while robust, may benefit from further validation using alternative methodologies. Exploring the influence of external factors, such as government policies, on investor confidence and REIT growth could also enhance the depth of the analysis, contributing to a better understanding of the REIT market in Kenya.

References

Accorn Holdings. (2021). *Accorn student accommodation.* Retrieved on 11th May 2021 from https://acornholdingsafrica.com/wp-content/uploads/2021/08/ASA-I-REIT-2021-HY_Signed.pdf

Africa Business Communities. (2015). *Real estate building the future of Africa*. Retrieved on 17th December 2019 from https://www.africanbusinesscentral.com/wp content/uploads /2015/05 Real-estate-Building-the-future-of-Africa-PwC.pdf

Amiri, A., Ravanpaknodezh, H. & Jelodari, A. (2016). Comparison of stock valuation models with their intrinsic value in the Tehran stock exchange. *Marketing and Branding Research, 3,* 24-40.

Bao, X.H., & Li, S. H. (2020). Investor overconfidence and trading activity in the Asia Pacific REIT markets. *Journal of Risk and Financial Management, 13*(10), 232.

Bloomberg. (2020). *China takes first steps toward $3 trillion REIT market.* Retrieved on 25th January 2021 from https://www.bloomberg.com/news/articles/2020-06-02/china-takes-first-steps-toward-launching-3-trillion-reit-market

Browne, M. W., & Cudeck, R. (1992). Alternative ways of assessing model fit. *Sociological methods & research*, *21*(2), 230-258.

Byrne, B.M. (2006). *Structural equation modelling with EQS: Basic concepts, applications, and programming,* (2 ed.). Mahwah, New Jersey: USA.

Cao, H. H., Wang, T. & Zhang, H. H. (2005). Model uncertainty, limited market participation and asset prices. *Review of Financial Studies, 18* (4), 1219–1251.

Chakraborty, M. & Subramaniam, S. (2020). Asymmetric relationship of investor sentiment with stock return and volatility: evidence from India. *Review of Behavioural Finance, 12* (4), 435-454.

Chan, S.H., Erickson, J. & Wang, K. (2003). *Real estate investment trusts: Structure, performance and investment opportunities.* New York, USA: Oxford University Press.

Chen, Y.W., Chou, R. K. & Lin, C.B. (2019). Investor sentiment, SEO market timing, and stock price performance. *Journal of Empirical Finance, 51*, 28-43.

Chi, L., Zhuang, X. & Song, D. (2012). Investor sentiment in the Chinese stock market: An empirical analysis. *Applied Economics Letters, 19* (4), 345–348.

Ciochetti, B. A., Craft, T. M. & Shilling, J. D. (2002). Institutional investors' preferences for REIT Stocks. *Real Estate Economics, 30* (4), 567–593.

Clayton, J., & MacKinnon, G. (2001). The time-varying nature of the link between REIT, real estate and financial asset returns. *Journal of Real Estate Portfolio Management*, *7*(1), 43-54.

CMA (2019). *REITs*. Retrieved on 16th November 2019 from https://cma.or.ke/ index.php?option=com_phocadownload&view=category&id=58&Itemi d=248.

CMSA. (2011). *Capital markets and securities collective investment schemes regulations 2011*. Retrieved on 16thJanuary 2020 from https://cmsa-tz.org/index.php/regulation

Crested Capital. (2016). *Fusion Capital extends D-REIT sale*. Retrieved on 17th April 2020 from http://crestedcapital.com/2016/07/19/fusion-capital-extends-d-reit-sale-to-july-26/

Cytonn Investments. (2019). *Real estate investment trusts, REITs, as an investment alternative.* Retrieved on 4th February 2020 from https://cytonnreport. com/ topicals/real-estate-investment

Das, P. K., Freybote, J., & Marcato, G. (2014). An investigation into sentiment-induced institutional trading behavior and asset pricing in the REIT market. *The Journal of Real Estate Finance and Economics, 51*(2), 160–189.

Devos, E., Ong, S.E., Spieler, A. C. & Tsang, D. (2012). REIT institutional ownership dynamics and the financial Crisis. *The Journal of Real Estate Finance and Economics, 47* (2), 266–288.

Eichholtz, P., & Yönder, E. (2015). CEO overconfidence, REIT investment activity and performance. *Real Estate Economics, 43*(1), 139-162.

EPRA. (2013). *Global REIT survey 2013.* Retrieved on 4th March 2020 from https://prodapp.epra.com/media/EPRA_Global_REIT_Survey_2013_-_all_countries_1412171426630.pdf

Ernst & Young. (2019). *Global REIT markets.* Retrieved on 15th December 2019 from https://www.ey.com/Publication/vwLUAssets/ey-global-reit-markets/$FILE/ey-global-reit-markets.pdf

Freybote, J. (2016). Real estate sentiment as information for REIT bond pricing. *Journal of Property Research, 33* (1), 18-36.

Freybote, J. & Seagraves, P. A. (2016). Heterogeneous investor sentiment and institutional real estate investments. *Real Estate Economics, 45* (1), 154-176.

Gao, Y., Zhao, C., Sun. B., & Zhao, W. (2022). Effects of investor sentiment on stock volatility: new evidences from multi-source data in China's green stock markets. *Financial Innovation, 8*(1),77.

Global Ethical Banking. (2019). *Gulf's REITs bring IPO receipts, but investor returns not neat*. Retrieved on 13th March 2020 from https://www.globalethical banking.com/gulfs-reits-bring-ipo-receipts-investor-returns-not-neat/

Hair, J.F., Black, W. C., Babin, B. J. & Anderson, R. E. (2010). *Multivariate data analysis. (7th ed)*. Upper Saddle River, New Jersey: Prentice Hall.

Hiriyappa, B. (2008). *Investment management: securities and portfolio management.* New Delhi, India: New Age.

Hu, L., & Bentler, P. M. (1999). Cut off criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modelling, 6* (1), 1-55.

Huerta, D., Jackson, D. O., & Ngo, T. (2015). Categorizing sentiment and its impact on REIT returns. *Managerial Finance, 41*(9), 958–973.

Israel, G.D. (1992). *Determining Sample Size.* University of Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, EDIS, Florida.

Jakpar, S., Tinggi, M., Tak, A. H. & Ruzlan, N. A. (2018). Determinant factors of profitability in Malaysia's Real Estate Investment Trusts (M-REITS). *UNIMAS Review of Accounting and Finance, 1* (1), 72-84.

Jalil, R. A., Sheauting, L., Sapri, M., Fadzli, S. Z., & Chai, T. (2017). The potential of Malaysian REITS'property type allocation. *International Journal of Real Estate Studies, 11*(2), 1-12.

Johnk, D. W. & Soydemir, G. (2015). Time-varying market price of risk and investor sentiment: Evidence from a multivariate GARCH model. *Journal of Behavioral Finance, 16,* 105-119.

Khusoko. (2020). *Property developer, Accorn to sell Qwetu and qejani students hostels stake through D-REIT*. Retrieved on 6th January 2020, from https://khusoko.com/ 2020/03/09/property-developer-acorn-to-sell-qwetu-and-qejani-student-hostels-stake-through-d-reit/

Kulab, J. (2017). *Property funds and REITs in Thailand: A CAPM Investigation*. Retrieved on 10th May 2022 from SSRN: https://ssrn.com/abstract=2907400 or http://dx.doi.org/10.2139/ssrn.2907400

Macrotrends. (2020). Amer*ican Tower (REIT) market cap.* Retrieved on 2nd February 2020 from https://www.macrotrends.net/stocks/charts/AMT/american-tower-reit/market-cap

McDonald, R. P., & Ho, M. H. R. (2002). Principles and practice in reporting statistical equation analyses. *Psychological Methods, 7* (1), 64-82.

Naidoo, H. (2014). *The introduction of REITs to the South African property market: Opportunities for fund managers.* Unpublished Masters Thesis, Wits Business School, Johannesburg: South Africa.

Ndung'u, D. T., & Onyuma, S. O. (2022). Relationship between property type-Location diversification and performance of real estate investment trusts In Kenya. *European Journal of Economic and Financial Research,6* (4), 14-36

Ndung'u, D. T. & Onyuma, S. O. (2020). Financing affordable housing in Africa through real estate investment trusts. *AfricaGrowth Agenda, 17* (2), 14-15.

Ndung'u, D. T., & Onyuma, S. O. (2022). Relationship between property diversification attributes and financial performance of real estate investment trusts in Kenya. *Laikipia university journal of social sciences, education and humanities, 1*(2), 99-109.

Ndung'u, D.T. & Kung'u, J. N. (2022). Influence of investor awareness on performance of real estate investment trusts in Kenya. *Journal of Business, Economics and Finance, 11* (3), 122-129.

Ntuli, M., & Akinsomi, O. (2017). An overview of the initial performance of the South African REIT market. *Journal of Real Estate Literature, 25*(2), 365-388.

Nurick, S., Boyle, L., Morris, G., Potgieter, J., & Allen, O. (2018). An investigation into the relatively low uptake of residential stock within South African Real Estate Investment Trusts. *Journal of African Real Estate Research, 3*(1), 61-80.

Olanrele, O.O. (2014). REIT performance analysis: Are other factor determinants constant?, *Asian Economic and Financial Review,4* (4), 492-502.

Oreagba, F., (2010). *Seminar paper on implementation of REIT in Nigeria (N-REIT): A seminar on real estate investment trust (REIT).* Nigerian Stock Exchange, Lagos: Nigeria.

Oxford Business Group. (2019). *Real estate: Although real estate in Ghana has slowed down, REITs hold potential.* Retrieved on 20th March 2020 from https://oxfordbusinessgroup.com/analysis/real-estate-although-real-estate-has-slowed-down- reits-hold-potential

Pallant, J. (2011). *Multivariate analysis of variance. SPSS survival manual.* Crows Nest, Australia: Allen & Unwin.

Pham, A. K. (2013). *An empirical analysis of real estate investment trusts in Asia: Structure, performance and strategic investment implications.* Unpublished PhD thesis, University of Western Sydney, Sydney: Australia.

Press Reader (2019). *Why time is now for REITs investors to reconsider residential properties.* Retrieved on 16th December 2019 from https://www.pressreader com/nigeria/business-day-nigeria/20191231/281977494540509

San, O. T., Heng, T. B., & Pong, C. M. (2011). A study on the performance of Malaysian real estate investment trusts from 2005-2010 by using net asset value approach. *International Journal of Economics and Research*, *2*(1).

Savills Research. (2019). *REIT market 101.* Retrieved on 6th March 2020 from https://pdf.savills.asia/selected-international-research/reits-en-1111.pdf

Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling.* New Jersey: Lawrence Erlbaum Associates.

Sekeran, U. (2003). *Research method for business: A skill building approach (4th ed).* John Hoboken, New Jersey: Wiley & Sons Ltd.

Statista. (2019). *Market capitalization of real estate investment trusts (REITs) in the United States 1975 to 2018.* Retrieved on 9th November 2019 from https://www.statista.com /statistics/916665/market-cap-reits-usa/

Tabachnick, B. G. & Fidell, L. S. (2007). *Using multivariate statistics (5th ed).* Boston, USA: Allyn & Bacon.

Vreeker. J. (2020). Asia pacific listed property sector surges 22.8% in 2019, despite marginal loss in December 2019. Retrieved on June 2020 from https://www.reitasiapac.com/

Watumishi Housing Company. (2019). *WHC-REIT*. Retrieved on 17th January 2020 from https://www.whc.go.tz/

Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American Journal of Applied Mathematics and Statistics*, *9*(1), 4-11.

PWC. (2019). *Global REIT regimes.* Retrieved on 2nd December 2019 from https://www.pwc.com/gx/en/asset-management/assets/pdf/worldwide-reit-regimes nov-2019.pdf