

A Strategic Turnaround Model for Distressed Properties

By Lesvokli Pitsiladi*, Chris Adendorff[‡] & Brink Botha[°]

The importance of commercial real estate is clearly shown by the role it plays, worldwide, in the sustainability of economic activities, with a substantial global impact when measured in monetary terms. This study responds to an important gap in the built environment and turnaround literature relating to the likelihood of a successful distressed commercial property financial recovery. The present research also addressed the absence of empirical evidence by identifying several important factors that influence the likelihood of a successful distressed, commercial property financial recovery. Once the important factors that increase the likelihood of recovery have been determined, the results can be used as a basis for turnaround strategies concerning property investors who invest in distressed opportunities. A theoretical turnaround model concerning properties in distress, would be of interest to 'opportunistic investing' yield-hungry investors targeting real estate transactions involving 'turnaround' potential. A proposed theoretical model was constructed and empirically tested through a sample of real estate practitioners from across the globe, and who had all been involved, directly or indirectly, with reviving distressed properties. The statistical analysis performed to ensure the validity and reliability of the results, together with a detailed description of the covariance structural equation modelling method used to verify the proposed theoretical conceptual model. The research presents important actions that can be used to influence the turnaround and recovery of distressed real estate. The literature had indicated reasons to recover distressed properties as having wide-ranging economic consequences for the broader communities and the countries in which they reside. The turnaround of distressed properties will not only present financial rewards for opportunistic investors but will have positive effects on the greater community and economy and, thus, social, and economic stability.

Introduction

According to a Savills World Research 2016 report, the value of all developed real estate assets entailing residential properties, commercial properties, industrial properties, and agricultural land, across the globe, equated to roughly US\$217 trillion (Barnes, 2016). The need for real estate is shown in countless studies (Levy & Peterson, 2013). Real estate is widely regarded as a good investment (Wolski & Zaleczna, 2011). Real estate as an asset class to invest in differs from other types of investments for the following reasons, notably; the investor owns and controls the asset, the asset can be physically improved, the asset can be made more operationally efficient and the asset can be repurposed, all of which can contribute

*PhD, Hercules Capital Holdings, Port Elizabeth, South Africa.

[‡]Professor, South Africa Institute of Futures Literacy and Communications, South Africa.

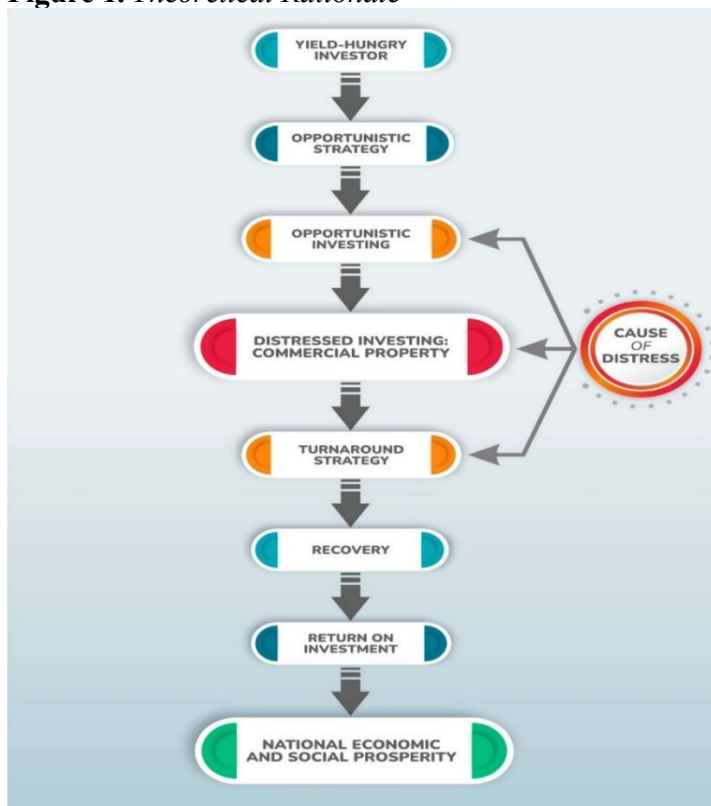
[°]Professor, Cape Peninsula University of Technology, Cape Town, South Africa.

to enhancing the returns of the asset (Ross & Mancuso, 2011). The risk-return investment styles for real estate investing include core, value-added and opportunistic property investing (Folkestone Ltd, 2015).

Opportunistic property investing can involve investing in distressed properties (Brady, 2016), where opportunities emerge for property investors to acquire distressed properties with the goal of turning the broken property around (NEPC, 2010). In these circumstances, although risk can be the greatest, the investor has an opportunity to possibly earn above-normal returns (Gahr et al., 2017). This will very much depend on the investor's experience, knowledge, and skill in managing properties. It will also depend on the conditions of the overall market and the timing of the property investment (Brady, 2016). Distressed properties are characterised by unsustainable capital structures, high vacancy rates, may require capital investment to lease vacant space and may require capital investment to change the use or rebrand the property and possibly the construction of new buildings (Brady, 2016). Obsolescence, in its many forms, is a key cause of a property to become problematic and distressed (Healy, 1989).

Regarding a state of distress, until corrective measures are taken, the severity of the state of decline, and thus financial distress, will deteriorate further to a point where monetary obligations cannot be covered and honoured. To correct these types of situations, a turnaround strategy must be developed and implemented (Mbandu, 2016). The recovery from distress is known as a 'turnaround' (Schendel, Patton & Riggs, 1976; Schweizer & Nienhaus, 2017).

Figure 1. Theoretical Rationale



Source: Own Construction

There is an abundance of literature on theoretical turnaround models, and which show different strategies and activities conducted during a business or organisational turnaround, such as the turnaround models found in the research publications of Pearce & Robbins (1993; 2008); Maheshwari (2000); Chowdhury (2002); Lohrke, Bedeian & Palmer (2004); Pandey & Verma (2005); Sheppard & Chowdhury (2005); Cater & Schwab (2008); Pretorius (2008); Jeyavelu (2009); Tangpong, Abebe & Li (2015); Mbandu (2016); Rockwell (2016) & Schweizer and Nienhaus (2017); but there is no known formal, theoretical turnaround model that shows strategies and activities conducted during the turnaround of a distressed commercial property.

To summarise; given the relative importance of real estate in general, the absence of empirical evidence on strategies and activities that increase the likelihood of a successful distressed commercial property financial recovery is an important gap in the built environment and turnaround literature. The research addressed the absence of empirical evidence by identifying several important factors that influence the likelihood of a successful distressed, commercial property financial recovery.

Once the important factors that increase the likelihood of recovery have been determined, the results can be used as a basis for turnaround strategies concerning property investors who invest in distressed opportunities.

The Research Problem

The real estate market will always be in a state of perpetual transformation due to changes and disruptions in the economy, legislation, innovation, and operational factors (JLL, 2013). Opportunities are likely to always emerge at some point for an real estate investor to turn 'broken' properties around (NEPC, 2010). Pursuing turnaround strategies may likely require the adoption of a series of consequential, direct, long-term decisions and actions with the aim of reversing a perceived crisis that threatens survival (Cater & Schwab, 2008; Kibui & Iravo, 2017). The purpose of the present research was to contribute to the built environment and turnaround literature, by investigating important strategies and activities that would improve the likelihood of a successful distressed commercial property financial recovery. The primary objective of the present research was to develop a theoretical turnaround process model for distressed commercial properties. While there is an abundance of literature on theoretical turnaround models, that indicate different reform strategies, decisions and actions conducted during a business or organisational turnaround, there is no known formal, theoretical turnaround model that shows strategies and activities conducted during the turnaround of a distressed commercial property. Against this background, the main research problem investigated in the present research effort was as follows:

Determine the Important Factors that would Increase the Likelihood of a Successful distressed Commercial Property Financial Recovery

A theoretical turnaround model concerning properties in distress, would be of interest to ‘opportunistic investing’ yield-hungry investors targeting real estate transactions involving ‘turnaround’ potential.

Research Methodology

Table 1 provides a summary of the research methodology concerning the present research effort.

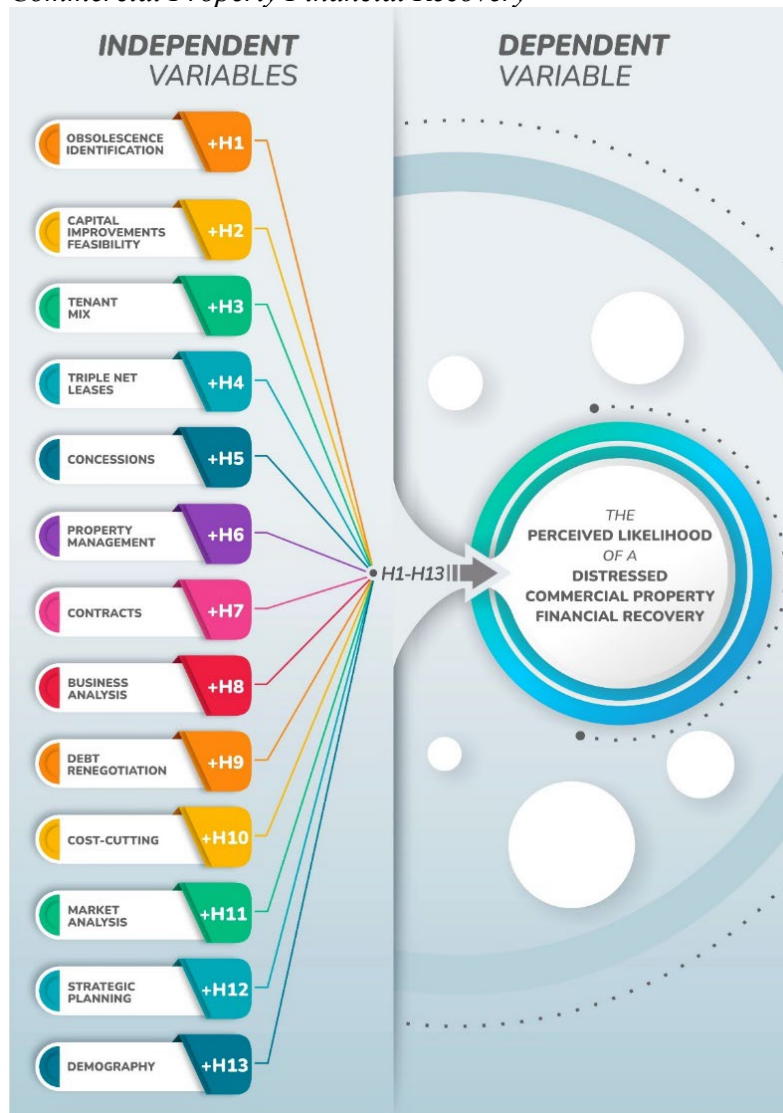
Table 1. *Research Methodology Summary*

Research paradigm	Positivism
Type of research	Explanatory
Research design	Quantitative; survey
Population studied	Global real estate stakeholders and actors
Sample size	391 respondents
Sampling unit	Individual perceptions of each of the real estate stakeholders and actors in the sample.
Sampling methods	Probability methods
Method of data collection	Self-administered questionnaires
Administration of questionnaire	Online; email
Scale	Interval; Likert 7 point; attitudinal
Research approach	Deductive
Validity	Pilot test; exploratory factor analysis; expert opinion; existing literature
Reliability	Cronbach’s α
Dimension reduction technique	Exploratory factor analysis
Extraction method	Principal axis factoring; Kaiser’s criteria
Rotation method	Oblimin with Kaiser normalisation
Method of data analysis	Covariance-based structural equation modelling
Estimation method	Robust maximum likelihood
Fit indices	<ul style="list-style-type: none"> • Satorra-Bentler scaled chi-square • Normed chi-square (χ^2/df) • Root mean square error of approximation • Expected cross-validation index
Software package	LISREL

The Conceptual Model, Hypotheses and Operational Definitions

The proposed conceptual model and the hypothesised relationships between the variables is presented in Figure 2.

Figure 2. Proposed Conceptual Model for the Perceived Likelihood of a Distressed Commercial Property Financial Recovery



Source: Own Construction

The researchers accessed existing literature for construct definitions and explanations, and where the items used in the instrument were deduced from the definitions and explanations. The various operational definitions of the dependent and independent variables are provided below:

Dependent Variable: The Perceived Likelihood of a Distressed Commercial Property Financial Recovery

For the purpose of the present research and within the context of The Perceived Likelihood of a Distressed Commercial Property Financial Recovery, the dependent variable was defined as income-producing properties, where a property had become

distressed, in other words, the property generated minimal, if any, positive net operating income, and the situation would likely only improve when normal operations of the property had resumed, and the property performance returned to levels prior to the state of decline and was of an acceptable performance level to the property stakeholders, and the property achieved a positive cash flow and crossed the break-even point, the property became financially solvent, the property regained profitability and competitive advantage, there was a reduction in vacancies, an increase in rent income and the property was able to avoid a loan default. The turnaround outcome was, therefore, seen as an increase in the net operating income of the property, in other words, the improvement of the property's cash flow situation, hence resulting in the improved likelihood of a successful financial recovery of the commercial property that was in distress (NEPC, 2010).

Independent Variable: Obsolescence Identification

For the purpose of the present research, Obsolescence Identification refers to inspecting the condition of a building, identifying unused facility space, identifying structural deficiencies, identifying inefficient facility design, reviewing documents and reports concerning building functionality, inspecting the current circumstances and situation of the surrounding neighbourhood, conducting a comparative analysis of market rental rates and analysing data concerning the financial performance of the property. Identifying functional obsolescence triggers the need to change the current function of the property to a more profitable function or use of the rentable space.

Identifying locational and/or economic obsolescence would likely require the demolishing of existing structures and buildings and the total redevelopment of the property to suit the existing circumstances of the external environment affecting the property. It is, therefore, hypothesised that:

H1: There is a positive relationship between the importance of Obsolescence Identification and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Capital Improvements Feasibility

For the purpose of the present research, Capital Improvements Feasibility entailed determining if there was a reasonable likelihood of satisfying explicit objectives when a selected course of action was tested for the fit to a context of specific constraints and limited resources in order to implement long-term improvements to the physical quality of a property, to implement structural additions that increased the useful life of a property, to implement alterations that prolonged the economic life of a property and to implement the replacement of building components. Improving the physical quality, adding structures and alterations that increase building economic life and replacing building components, which are assessed to be feasible and result in future, higher rental rates and lower, future

operating expenses, will improve the overall prospects of the property. It is, therefore, hypothesised that:

H2: There is a positive relationship between the importance of Capital Improvements Feasibility and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Tenant Mix

For the present research, Tenant Mix refers to selecting an appropriate mix of tenants that consists of a variety of compatible retail and service providers, that accomplishes the desired property image, and where the goods and services offered by non-anchor tenants do not clash with those of the anchor tenants. Servicing both destination and impulse customers, generates traffic to the benefit of all tenants and generates maximum sales potential.

An appropriate tenant mix would improve the benefits for all the tenants, reduce the risk of any tenant not renewing a lease contract and, therefore, reducing vacancies, and thereby benefiting the prospects of the property. It is, therefore, hypothesised that:

H3: There is a positive relationship between the importance of the Tenant Mix and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Triple Net Leases

For the present research, Triple Net Leases entail lease agreements where the tenant is responsible for covering real estate taxes, utility expenses, property insurance, agreed-on items of maintenance and repair and common area maintenance. From triple net lease agreements, the risk of inflation in operating costs is transferred to the tenant but also the tenant receives a lower base rent and can control operating expenses. From the perspective of the property owner, triple net lease agreements are low risk, provide a predictable monthly income and some protection against inflation in operating costs, and should thus improve the overall prospects of the property. It is, therefore, hypothesised that:

H4: There is a positive relationship between the importance of Triple Net Leases and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Concessions

For the present research, Concessions are about offering incentives to existing tenants to encourage lease renewal or to attract new tenants. The incentives or concessions include a reduced rental rate for a specific period, covering penalties incurred by a tenant for breaking an existing lease and providing a tenant with an allowance for internal fitouts. Concessions encourage the leasing of space at a time when the rental market is unfavourable for the landlord, thereby leading to a reduction in vacancies, and hence improving the prospects for the property. It is, therefore, hypothesised that:

H5: There is a positive relationship between the importance of Concessions and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Property Management

For the present research, Property Management refers to property management services, where the property owner either manages the property, or hires a property manager as an employee or appoints a property manager on a fee basis. Property management is required to keep the property in good condition, minimise operating costs, develop a positive image for the property, improve the overall rental value, negotiate profitable lease contracts, continuously improve both the physical structure and technical functions of a building, and manage a diverse combination of tenants. Good property management would likely improve the prospects of a property. It is, therefore, hypothesised that:

H6: There is a positive relationship between the importance of Property Management and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Contracts

For the present research, Contracts are about making amendments to the property management contract to align the interests of the property owner and property management services or hired property manager and, thereby, reducing any immoral or hazardous behaviour of the property manager. Property owners should consider the idea of making changes to the level of decision-making power that a property manager has concerning the property. Property owners should also adjust the level of protection that property management has from being held liable for property-specific lawsuits. Lastly, property owners should make changes to the property management compensation agreement that will result in the alignment of the interests of the property manager and the property owner. A situation where the interests of the property manager and the property owner are aligned would likely increase the prospects of the property. It is, therefore, hypothesised that:

H7: There is a positive relationship between the importance of Contracts and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Business Analysis

For the present research, Business Analysis entails the evaluation of the economic prospects of, and risks faced by, the property to make informed strategic decisions that will assist in reaching the goals of the property owner. In times of distress an appropriate strategic decision may require a decision to be made regarding the reengineering of the property. Reengineering the property requires the rethinking and radical redesign of the property business processes to achieve a dramatic improvement in critical, contemporary measures of performance. Reduced costs and increased revenues are the ultimate goals of the property reengineering

efforts. Informed strategic decision-making about property reengineering, because of business analysis, would likely improve the prospects of the property. It is, therefore, hypothesised that:

H8: There is a positive relationship between the importance of Business Analysis and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Debt Renegotiation

For the present research, Debt Renegotiation is about the property owner negotiating with the property lender to secure more favourable loan terms for the property owner who is the borrower, with the goal of avoiding a loan default, which would be both in the best interests of the lender and the borrower. The property owner would request for amendments to be made to the existing loan agreement and make a request for facilities that alleviate financial stress and/or request the current loan to be replaced with a loan that has terms that are more favourable for the property owner to manage the property debt situation. Should the property lender concede and assist the property owner, this would enable the property owner to get a sustainable grip on the property debt situation and should improve the future financial situation of the property. It is, therefore, hypothesised that:

H9: There is a positive relationship between the importance of Debt Renegotiation and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Cost-Cutting

For the present research, Cost-Cutting is the strategic action and process of reducing the overall cost situation of the property. Cost-cutting entails cutting administrative overheads, eliminating non-essential low value-adding property operational activities, modernising the property equipment and overall technological situation of the property, delaying non-essential capital expenditure, and restructuring the property debt situation. Reduced costs would lead to better property prospects, provided that the reduction in costs does not cause tenants to vacate and does not infringe on, and affect the capacity of, the property to earn the market rental rates. It is, therefore, hypothesised that:

H10: There is a positive relationship between the importance of Cost-Cutting and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Market Analysis

For the present research, Market Analysis is the study of the real estate market in which the property operates. Analysing the real estate market surrounding the property entails evaluating the supply and demand conditions for rental space, forecasting the supply and demand for space, forecasting the future rental rate, forecasting potential vacancies, gathering information about comparable competitive properties, the identification of prospective tenants and studying relevant economic

and demographic information that would have an impact on leasing. Property owners would use information gathered from the market analysis to determine the rental rates for lease agreements, and where the rental rates would be adjusted to meet the changing market conditions projected by the market analysis. Having favourable rental rates that suit the current market conditions would likely increase the overall income situation of the property. It is, therefore, hypothesised that:

H11: There is a positive relationship between the importance of Market Analysis and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Strategic Planning

For the present research, Strategic Planning is about developing a strategy for the property, with the goal of achieving an appropriate return on the property. Strategic planning involves the formulation of a formal and well-prepared documented strategic plan for the property. Strategic plan formulation would entail evaluating the existing strategies of the property and generating new ones.

A strategic plan would contain the goals of the property owner. Planners collect property-related data and construct models describing alternative future scenarios concerning the property. It is, therefore, hypothesised that:

H12: There is a positive relationship between the importance of Strategic Planning and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

Independent Variable: Demography

For the present research, Demography entails the study of the size, territorial distribution, and composition of the population of the geographical region where the property is situated. Studying the population composition involves looking at age groups, gender, marital status, health, skills, and qualifications. Demography involves studying the natality, mortality, and migration situation of the population of interest. Understanding the changes in the size and composition of the local population of interest will provide a better understanding of the level of disposable income, spending patterns and the available workforce, since employment has a direct influence on consumer spending potential and is related to the demand for rentable space. Furthermore, the demographical study of the local population of interest forms part of a feasibility study concerning a property related project. It is, therefore, hypothesised that:

H13: There is a positive relationship between the importance of Demography and the Perceived Likelihood of a Distressed Commercial Property Financial Recovery.

The validity of the content of the measuring scales and the questionnaire in the present research effort was assessed by a research expert and an academic. The research expert was given the construct definitions of the different variables and asked to assess whether the 89 questionnaires/statements in the measuring instrument were considered relevant, necessary, meaningful, and correctly worded, thereby

checking the content validity. A pilot study was conducted to test the instrument with 30 respondents who had similar characteristics to the study population. All necessary amendments and corrections were implemented.

Population Studied, Sample Size and Response Rate

For the present research, the target population was defined as real estate stakeholders and actors who had participated, or who were participating in distressed property financial recovery projects, from both the public and private sector, from across the world. The actual global population of all the real estate stakeholders and actors that have been involved in a distressed property recovery project is unknown, as well as the proportions of the profession segments that make up the study target population. The researcher had randomly selected as many real estate practitioners from across the globe as possible, where only candidates that were linked to real estate were randomly selected and contacted. The researcher had sought participation, via email, from several sources, as described below:

- The professional networking platform, ‘LinkedIn’, achieving 2500 plus real estate-related connections.
- Real estate divisions of the various major banks in South Africa, with some banks responding.
- Real estate-related companies from across the world.
- The South African Property Owners Association.
- The Women’s Property Network
- The South African Institute of Valuers.
- The Property Sector Charter Council.
- Rode and Associates.
- Urban Studies South Africa.
- The Johannesburg Development Agency.
- TUHF Property Finance.
- The African Real Estate Society.
- From a conference, where many the attendees had previous experience with distressed properties.

Once the consent of a real estate-related experts to take part in the present research effort was obtained, the candidate respondents were provided (emailed/ hard copy delivery) with a questionnaire, including instructions on how to facilitate completion. Only respondents that had been involved in at least one real estate-related project and/or transaction that resulted in the full recovery of the net cash flow of a distressed ‘income earning’ property, to a level that was sufficient to cover any debt service for at least two years, was selected to participate in the present research effort. Questionnaires were captured on the ‘Nelson Mandela University Web Survey’ platform (Nelson Mandela University, 2020) and the ‘Qualtrics’ platform (Qualtrics, 2020). The sample size of respondents who had been involved in a distressed commercial property financial recovery amounted to 391

respondents. The respondents from the pilot test were not incorporated in the final study.

Presentation and Analysis of Data

The following section discusses the statistical analysis of the results from the questionnaires.

Construct Validity

In the present research effort, an exploratory factor analysis was conducted to assess the convergent validity of the research instrument used to measure the constructs incorporated in the theoretical conceptual model and to confirm whether the sample data contained the underlying dimensions of *The Perceived Likelihood of a Distressed Commercial Property Financial Recovery* as proposed in the theoretical conceptual model. According to Williams et al. (2010) exploratory factor analysis is a multivariate statistical method with the objective of evaluating the construct validity of a scale, test or measuring instrument. Construct validity evidence entails convergent and discriminant evidence (Cizek et al., 2008; Wang et al., 2015). Convergent validity evaluates the degree to which two measures of the same concept are correlated, where high correlations are strong indicators that the scale is in fact measuring the intended concept (Hair et al., 2014a). The sample size of the present research effort comprised 391 respondents and the measuring instrument questionnaire contained 78 items. The complete matrix of responses was accessed by exploratory factor analysis. Before the extraction of the factors, it is recommended that multiple tests be used to determine the appropriateness of the data, collected from the respondents, for factor analysis. These include; the Kaiser-Meyer-Olkin measure of sampling adequacy (Kaiser, 1970; Williams et al., 2010) and the Bartlett's test of Sphericity (Bartlett, 1950; Williams et al., 2010). The Kaiser-Meyer-Olkin measure of sampling adequacy test and Bartlett's test of sphericity must be conducted to establish construct validity and to attain confirmation on whether the data collected for the exploratory factor analysis was appropriate (Yu & Richardson, 2016).

Satisfactory results require the Kaiser-Meyer-Olkin measure of sampling adequacy to have values 0.80 or higher (Yu & Richardson, 2016), although measures above 0.60 are acceptable (Rencher, 2002; Yu & Richardson, 2016). Measuring statistical relevance requires the use of the Bartlett's test of sphericity to test the null hypothesis, to conclude on whether the variables are not correlated amongst each other (Cruz-Martínez, 2014). The critical value or p-value of the test must be lower than $p = 0.05$ for statistical significance and relevance (Cruz-Martínez, 2014; Yu & Richardson, 2016). The present research effort adopted the principal axis factor extraction method and oblimin with the Kaiser normalisation rotation method. During extraction, factors are defined to represent the structure of the variables in the analysis (Hair et al., 2014b).

The principal axis factor extraction method requires that all variables belong to the first group so that when the factor is extracted, a residual matrix is calculated (Yong & Pearce, 2013). Factors must be extracted successively until there is sufficient variance accounted for in the correlation matrix (Tucker & MacCallum, 1997; Yong & Pearce, 2013). Principal axis factor must be used when the data violates the assumption of multivariate normality (Costello & Osborne, 2005; Yong & Pearce, 2013). Kaiser's criterion requires that all factors above the eigenvalue of one, be retained (Kaiser, 1960; Yong & Pearce, 2013). Oblique rotation requires the pattern matrix to be examined for factor or item loadings (Costello & Osborne, 2005). Oblimin benefits the study in that the method yields a simple structure by minimising the cross-products of factor loading (Finch, 2020). In Kaiser normalisation, the loadings of each variable must be divided by the square root of the communalities of the variables, as this is likely to ensure that each variable has equal influence on the rotation process (Dien et al., 2005).

Using an alpha level of 0.01, two-tailed, a rotated factor loading for a sample size of at least 300 must be at least 0.32 to be statistically meaningful (Tabachnick et al., 2007; Yong & Pearce, 2013). Convergent validity requires a minimum factor loading of 0.30, for a sample size of at least 350 (Hair et al., 2006). The eigenvalues greater than one, percentage of variance and individual factor loadings greater than 0.30 were considered to determine the number of factors to be extracted. The eigenvalues as presented in Table 2 and Table 3 suggest that 2 factors should be used as the dependent variables and 9 factors as independent variables.

All items with factor loadings less than 0.30 were deleted, resulting in the maximum interpretable factor structure as presented in Table 2 and Table 3 respectively. The newly formed constructs of the present research effort demonstrate sufficient convergent validity.

Two factors, with Eigenvalues greater than 1.0 were extracted and renamed as *The Likelihood of a Distressed Property Turnaround* and *The Likelihood of a Distressed Property Financial Recovery* respectively, and which are presented in Table 2. The exploratory factor analysis thus demonstrated that the dependent variable *The Perceived Likelihood of a Distressed Commercial Property Financial Recovery* was not a uni-dimensional construct, but consisted of two different sub-dimensions, as per the sample data of the present research effort. The two factors explained 49.36% of the variance in the data. The results indicated that the p-value significance level of the Bartlett's test of sphericity concerning the dependent variables equated to $p = 0.00$, which is less than the $p < 0.05$ requirement. Hence there is statistical significance and relevance and, therefore, the variables correlate amongst each other.

The results showed that the Kaiser-Meyer-Olkin measure of sampling adequacy concerning the dependent variable equated to 0.882, which exceeded the 0.80 threshold. Therefore, the results were satisfactory for the application of exploratory factor analysis.

Table 2. Rotated Factor Loadings: Dependent Variable

Eigenvalues	4.362	1.065
Item	Factor	
	1 The Likelihood of a Distressed Property Turnaround	2 The Likelihood of a Distressed Property Financial Recovery
TUR1	<u>.700</u>	
TUR6	<u>.528</u>	
TUR10	<u>.517</u>	
TUR13	<u>.515</u>	
TUR11	<u>.514</u>	
TUR3	<u>.382</u>	
TUR2	<u>.360</u>	
TUR8		<u>-.951</u>
TUR5		<u>-.684</u>
TUR7		<u>-.483</u>
TUR4		<u>-.453</u>

Source: Constructed by the Researcher

The results of the exploratory factor analysis for the study's independent variables are reported in Table 3, followed by the findings of the individual factor analysis. As mentioned before, Kaiser's criterion indicates that all factors that are above the eigenvalue of 1.0, should be retained (Kaiser, 1960; Yong & Pearce, 2013). The Eigenvalues greater than 1.0 extracted and renamed were *Strategy*, *Concessions*, *Tenant Mix*, *Debt Restructuring*, *Demography*, *Analysing Alternatives*, *Property Management* and *Net Leases* respectively, which are shown in Table 6.4.

Table 3 specify that a total of 36 items loaded on 9 different independent factors. For constructs to conform to convergent validity, the minimum factor loading of 0.30 is required for a sample size of 350 and over (Hair et al., 2006). The present research effort had a sample size of 391, therefore, the factor loadings on Table 3 represent significant loadings greater than or equal to 0.3. Hence, there was sufficient evidence of convergent validity and thus, evidence of construct validity. The nine factors account for 63.80% of the variance in the data. In the present research effort, the results showed that the p-value significance level of the Bartlett's test of sphericity concerning the independent variables equated to $p = 0.00$, which is less than the $p < 0.05$ requirement. Hence, there is statistical significance and relevance. Therefore, the variables correlate amongst each other. The results indicated that the Kaiser-Meyer-Olkin measure of sampling adequacy concerning the independent variables equated to 0.917, which exceeded the 0.80 threshold. Therefore, the results are satisfactory for the application of exploratory factor analysis.

Table 3. Rotated Factor Loadings: Independent Variables

Item	Factor								
	1	2	3	4	5	6	7	8	9
	Strategy	Concessions	Tenant Mix	Debt Restructuring	Demography	Analysing Alternatives	Capital Improvement	Property Management	Net Leases
STR3	<u>.740</u>								
STR2	<u>.680</u>								
BUS3	<u>.665</u>								
STR4	<u>.626</u>								
OBS7	<u>.594</u>								
MAN5	<u>.590</u>								
BUS2	<u>.562</u>								
MAN3	<u>.535</u>								
BUS1	<u>.511</u>								
MAN4	<u>.496</u>								
OBS8	<u>.479</u>								
STR5	<u>.477</u>								
CON3		<u>.728</u>							
CON2		<u>.595</u>							
NET1		<u>.593</u>							
TEN3			<u>.693</u>						
TEN1			<u>.675</u>						
REN1				<u>.759</u>					
COST6				<u>.700</u>					
REN3				<u>.697</u>					
REN2				<u>.399</u>					
DEM3					<u>-.648</u>				
DEM1					<u>-.608</u>				
DEM2					<u>-.531</u>				
MAR1						<u>.658</u>			
COST4						<u>.658</u>			
CAP2							<u>-.615</u>		
CAP3							<u>-.601</u>		
OBS3							<u>-.446</u>		
OBS4							<u>-.429</u>		
MAN6							<u>-.407</u>		
BUS4								<u>.713</u>	
MAN1								<u>.597</u>	
CAP4								<u>.486</u>	
TEN7								<u>.464</u>	
NET4									<u>.597</u>
NET5									<u>.579</u>
Eigenvalues	11.545	2.409	1.964	1.656	1.464	1.341	1.145	1.093	.990

Source: Constructed by the Researcher

The research adopted Cronbach’s α technique for determining the reliability of the measuring instrument. Cronbach’s α is an effective test to establish the internal consistency of a measuring instrument (Heale & Twycross, 2015; Kim et al., 2016). If $\alpha \geq 0.9$, the internal consistency is considered excellent (Kim et al., 2016; Yu & Richardson, 2016), if $0.7 \leq \alpha < 0.9$, internal consistency is considered good (Kim et al., 2016). An acceptable reliability score is 0.7 and higher (Blunch, 2008; Heale & Twycross, 2015; Lobiondo-Wood, 2013; Shuttleworth, 2015; Yu & Richardson, 2016). An acceptable reliability coefficient is 0.7, but lower thresholds are allowed with preliminary research (Nunnally, 1978; Reynaldo & Santon, 1999).

The minimally acceptable reliability for preliminary research must be in the range of 0.5 and 0.6 and cannot go lower than 0.5 (Nunnally 1967; Peterson, 1994). The Cronbach α of the constructs *The Likelihood of a Distressed Property Turnaround*, *The Likelihood of a Distressed Property Financial Recovery*, *Strategy*, *Concessions*, *Tenant Mix*, *Debt Restructuring*, *Demography*, *Capital Improvements Feasibility* and *Property Management* met the 0.70 reliability criteria. *Analyse Alternatives* and *Net Leases* were less than 0.70 but were above 0.50, but the minimally acceptable reliability for preliminary research situations must be in the range of 0.50 and 0.60 (Nunnally 1967; Peterson, 1994). *Analysing Alternatives* and *Net Leases*, therefore, could be accepted as reliable according to Nunnally (1967) and Peterson (1994). Various items were deleted to improve the reliability of the instruments. The convergent validity and Cronbach α and reliability measures provided sufficient evidence to support construct validity.

The Reformulation of the Hypotheses

After conducting the exploratory factor analysis, the theoretical conceptual model was modified. The original hypotheses formulated were reviewed. Table 4 provides a summary of the reformulation of the hypotheses.

Table 4. *Reformulation Of Hypotheses Tested*

H¹	There is a positive relationship between the importance of Strategy and The Likelihood of a Distressed Property Turnaround.
H²	There is a positive relationship between the importance of Concessions and The Likelihood of a Distressed Property Turnaround.
H³	There is a positive relationship between the importance a Tenant Mix and The Likelihood of a Distressed Property Turnaround.
H⁴	There is a positive relationship between the importance of Debt Restructuring and The Likelihood of a Distressed Property Turnaround.
H⁵	There is a positive relationship between the importance of Demography and The Likelihood of a Distressed Property Turnaround.
H⁶	There is a positive relationship between the importance of Analysing Alternatives and The Likelihood of a Distressed Property Turnaround.
H⁷	There is a positive relationship between the importance of Capital Improvement Feasibility and The Likelihood of a Distressed Property Turnaround.
H⁸	There is a positive relationship between the importance of Property Management and The Likelihood of a Distressed Property Turnaround.

H⁹	There is a positive relationship between the importance of Net Leases and The Likelihood of a Distressed Property Turnaround.
H¹⁰	There is a positive relationship between the importance of Strategy and The Likelihood of a Distressed Property Financial Recovery.
H¹¹	There is a positive relationship between the importance of Concessions and The Likelihood of a Distressed Property Financial Recovery.
H¹²	There is a positive relationship between the importance a Tenant Mix and The Likelihood of a Distressed Property Financial Recovery.
H¹³	There is a positive relationship between the importance of Debt Restructuring and The Likelihood of a Distressed Property Financial Recovery.
H¹⁴	There is a positive relationship between the importance of Demography and The Likelihood of a Distressed Property Financial Recovery.
H¹⁵	There is a positive relationship between the importance of Analysing Alternatives and The Likelihood of a Distressed Property Financial Recovery.
H¹⁶	There is a positive relationship between the importance of Capital Improvement Feasibility and The Likelihood of a Distressed Property Financial Recovery.
H¹⁷	There is a positive relationship between the importance of Property Management and The Likelihood of a Distressed Property Financial Recovery.
H¹⁸	There is a positive relationship between the importance of Net Leases and The Likelihood of a Distressed Property Financial Recovery.

Source: Constructed by The Researcher

Assessment of Goodness of Fit

The research adopted covariance-based Structural Equation Modelling (SEM) as the method of statistical analysis. Covariance-based structural equation modelling is used primarily to test theories, therefore explaining the relationships among various constructs that make up the theory (Svensson, 2015). Multivariate normality needs to be checked before conducting the Structural Equation Modelling analysis, as structural equation modelling is only effective when there is a multivariate normality assumption for data (Karakaya-Ozyer & Aksu-Dunya, 2018).

With covariance-based structural equation modelling only normal from non-normal distributions, need to be distinguished, where normal distributions are the preferred option (Hair et al., 2017d). The present research adopted the chi-square χ^2 test to determine whether the sample data was normal or non-normal. Chi-square-type tests should be used to test hypotheses to see whether there is adherence of the study sample to a normal law (Lemeshko, 2015). The software application LISREL was used to assess the normality of the data. Table 5 shows the results from LISREL concerning the measurement model of the present research effort. The Satorra-Bentler scaled chi-square (χ^2) of 851.769 ($p = 0.0$) provides testimony that the sample data does not fit the model perfectly and therefore **H₀**: *The data fits the model perfectly*, should be rejected.

The results of χ^2/df ratio equated to 1.43 and met the criteria (values < 3) for a good model fit. The results from the root mean square error of approximation

equated to 0.0334 and the criteria is values (< 0.05) for a good fit. Finally, the results of the expected cross-validation index equated to 2.743, where the criteria for a model fit required the expected cross-validation index to be less than the saturated model and the independence model, and in which, the results were less for both (2.743 is less than both 3.605 and 61.879), hence there is a model fit. In conclusion, the Satorra-Bentler scaled chi-square (χ^2) indicated that there was not a perfect model fit, but the χ^2/df ratio, root mean square error of approximation and expected cross-validation indices suggest that the measurement model of the present research effort, fits the data well, that is, a close fit. No changes were made to the measurement model.

Table 5. Goodness-of-fit Indices for the Measurement Model

Fit indices	Measurement Model Results
Sample size	391
Degrees of freedom (<i>df</i>)	594
Satorra-Bentler scaled chi-square (χ^2)	851.769 ($p = 0.0$)
Minimum fit function level	3.380
χ^2/df ratio: Satorra-Bentler scaled chi-square / Degrees of freedom	1.43
Root mean square error of approximation (RMSEA)	0.0334
Expected cross-validation index (ECVI)	2.743
Expected cross-validation index (ECVI) saturated model	3.605
Expected cross-validation index (ECVI) independence model	61.879

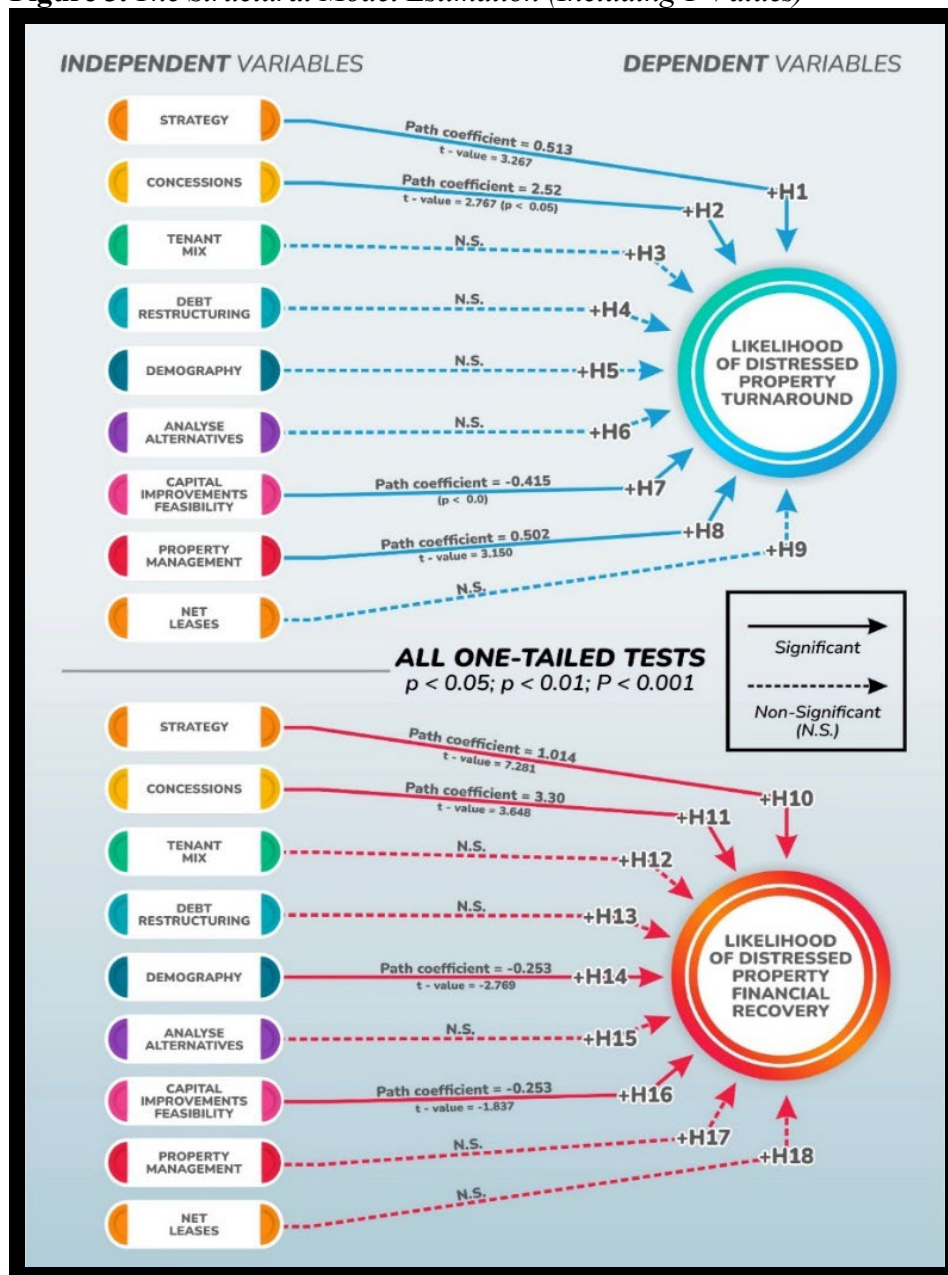
Source: Constructed by the Researcher

Specifying the Structural Model

Stage Five of SEM requires that the specification of the structural model and, thus, relationships amongst the constructs to another based on the proposed theoretical model, must be assigned, where a structural model specification is likely to use the dependence relationship type to represent structural hypotheses of the model (Hair et al., 2014c). Figure 3 depicts the estimated structural model of the present research effort. Each arrow represents the reformulation of the hypotheses as presented in Table 4.

Assessing Structural Model Validity

Stage Six of SEM requires the testing of the validity of the structural model and the corresponding, hypothesised, theoretical relationships where the goodness-of-fit and significance, direction and the size of the structural parameter estimates must all be assessed, and if the structural model is determined to be valid, then substantive conclusions and recommendations can be drawn, but if the structural model is determined to be invalid, then the model must be refined and tested with new data (Hair et al., 2014b).

Figure 3. The Structural Model Estimation (Including T-Values)

Source: Own Construction

Stage Six of SEM assess goodness-of-fit of the structural model (Hair et al., 2014b). To assess overall model fit, goodness-of-fit indices need to be utilised (Karakaya-Ozyer & Aksu-Dunya, 2018). Table 6 shows the results from LISREL concerning the structural and measurement models of the present research effort. The Satorra-Bentler scaled chi-square (χ^2) of 1480.413 (p = 0.0) provides testimony that the sample data does not fit the model perfectly. The results of χ^2/df ratio equated to 1.44 and the criteria for a good model fit is values of < 3.

The results from the root mean square error of approximation equated to 0.0336 and the criteria for a good fit is values (< 0.05). Finally, the results of the expected

cross-validation index equated to 4.560, where the criteria for a model fit required the expected cross-validation index to be less than the saturated model and the independence model, in which, the results were less for both (4.560 is less than both 6.031 and 99.281), hence there is a model fit. In conclusion, the Satorra-Bentler scaled chi-square (χ^2) indicated that there was not a perfect model fit, but the χ^2/df ratio, root mean square error of approximation and expected cross-validation indices suggested that both the measurement and structural models of the present research effort, fitted the data well, that is, a close fit.

Table 6. Goodness-of-fit Indices for the Measurement and Structural Models

Fit indices	Measurement Model Results	Structural Model Results
Sample size	391	391
Degrees of freedom (<i>df</i>)	594	1027
Satorra-Bentler scaled chi-square (χ^2)	851.769 (p = 0.0)	1480.413 (p =0.0)
Minimum fit function level	3.380	5.622
χ^2/df ratio: Satorra-Bentler scaled chi-square / Degrees of freedom	1.43	1.44
Root mean square error of approximation (RMSEA)	0.0334	0.0336
Expected cross-validation index (ECVI)	2.743	4.560
Expected cross-validation index (ECVI) saturated model	3.605	6.031
Expected cross-validation index (ECVI) independence model	61.879	99.281

Empirical Results

Once the model is established as being adequate, then the hypotheses within the model must be tested by evaluating the model parameter estimates (Ullman & Bentler, 2013). This is summarised below concerning both non-significant relationships and significant relationships as presented on Figure 3.

Non-significant Relationships

With reference to Figure 3, the results indicate that **H³**, **H⁴**, **H⁵**, **H⁶** and **H⁹** are statistically non-significant and are, therefore, rejected. *Tenant Mix*, *Debt Restructuring*, *Demography*, *Analysing Alternatives* and *Net Leases* are not likely to have any influence on *The Likelihood of a Distressed Property Turnaround* and hence, are assumed not to be important factors to consider improving the odds that a distressed property successful overall turnaround in operations and performance occurs. With reference to Figure 3, the results indicate that **H¹²**, **H¹³**, **H¹⁵**, **H¹⁷** and **H¹⁸** are statistically non-significant and are, therefore, rejected. *Tenant Mix*, *Debt Restructuring*, *Property Management*, *Analysing Alternatives* and *Net Leases* are not likely not to have any influence on *The Likelihood of a Distressed Property*

Financial Recovery and hence, are assumed not to be important factors to consider improving the odds that a distressed property financially fully recovers.

Significant Relationships

The results presented in Figure 3 indicate that there is a positive relationship, with a path coefficient of 0.513 and t-value of 3.267, between *Strategy* and *The Likelihood of a Distressed Property Turnaround*. H^1 is therefore accepted. The results indicated that there is a positive relationship, with a path coefficient of 1.014 and t-value of 7.281, between *Strategy* and *The Likelihood of a Distressed Property Financial Recovery*. Therefore, H^{10} is accepted.

The results further indicate that there is a positive relationship, with a path coefficient of 2.52 and t-value of 2.767 ($p < 0.05$), between *Concessions* and *The Likelihood of Distressed Property Turnaround*. Therefore, H^2 is accepted. The results presented in Figure 3 show that there is a positive relationship, with a path coefficient of 3.30 and t-value of 3.648, between *Concessions* and *The Likelihood of a Distressed Property Financial Recovery*. Therefore, H^{11} is accepted.

The results presented in Figure 3 indicated however that there is a negative relationship, with a path coefficient of -0.255 (minus) and t-value of -2.769 (minus), between *Demography* and *The Likelihood of a Distressed Property Financial Recovery*. Therefore, H^{14} is rejected. The results presented that there is a negative relationship, with a path coefficient of -0.415 (minus) ($p < 0.0$), between *Capital Improvements Feasibility* and *The Likelihood of a Distressed Property Turnaround*. Therefore, H^7 was also rejected.

The results presented in Figure 3 show that there is a negative relationship, with a path coefficient of -0.253 (minus) and t-value of -1.837 (minus), between *Capital Improvements Feasibility* and *The Likelihood of a Distressed Property Financial Recovery*. Therefore, H^{16} is rejected. The results further indicated that there is a positive relationship, with a path coefficient of 0.502 and t-value of 3.150, between *Property Management* and *The Likelihood of a Distressed Property Turnaround*. Therefore, H^8 is accepted.

Summary of Important Actions

Table 7 provides the summary of important actions to consider and actions not to consider concerning the influencing of *The Likelihood of a Distressed Property Turnaround* and of *The Likelihood of a Distressed Property Financial Recovery*. It must be noted that the actions set out in Table 7 are because of the findings from the empirical analysis, based on the opinions of real estate practitioners that have being involved in at least one distressed property recovery project and there is no evidence provided by the empirical analysis suggesting that any of the actions will guarantee a positive influence on the dependent variables. The recommendations on Table 7 are therefore advisory.

Table 7. Researcher Recommendations on Actions to Consider and not to Consider

The Likelihood of a Distressed Property Turnaround; and The Likelihood of a Distressed Property Financial Recovery.	
IMPORTANT ACTIONS TO CONSIDER	
Strategy	<ul style="list-style-type: none"> • A well-prepared strategic plan • Clearly specified goals • The analysis of the business environment • The evaluation of existing strategies • The analysis of market rental rates (market analysis) • The analysis of market rental rates (identifying locational obsolescence) • Management negotiating profitable lease contracts • The evaluation of economic prospects regarding the property • Management developing a positive image concerning the property • The evaluation of all risks • Management efforts of improving the rental value • The analysis of data concerning financial performance • The analysis of data concerning financial performance (identifying economic and functional obsolescence) • Planning for different future scenarios
Concessions	<ul style="list-style-type: none"> • Lease clause concessions entailing a net lease structure, involving a tenant taking responsibility for only covering real estate taxes, while the landlord is responsible for all other property expenses, in other words, a single-net lease agreement. • A concession that covers tenant moving expenses. • A concession that covers penalties incurred by a tenant for breaking an existing lease. <p><i>With a single-net lease, a property owner must manage insurance and maintenance operating cost inflation. Reducing costs by re-bidding certain services and shopping for new insurance can keep costs down (IREM, 2011). Cloete (2006) also noted that operating expenses can be decreased by ensuring the lowest quotes, increasing recoveries from tenants, ensuring an optimum capital and maintenance ratio and optimising energy systems.</i></p>
Property Management	<ul style="list-style-type: none"> • Management that negotiates profitable lease contracts (in conjunction with other strategic actions). • Management that develops a positive image concerning the property (in conjunction with other strategic actions). • Management efforts that improve the rental value (in conjunction with other strategic actions).
The Likelihood of a Distressed Property Turnaround	
IMPORTANT ACTIONS TO CONSIDER	
Property Management	<ul style="list-style-type: none"> • Assess the feasibility of replacing building components. • It is important to analyse the financial position of the property. • Property management that keeps the property in good condition.

	<ul style="list-style-type: none">• Select tenants that generate maximum sales potential.
--	---

Capital Improvements Feasibility	<ul style="list-style-type: none"> Assess the feasibility of replacing building components (in conjunction with other property management actions).
The Likelihood of a Distressed Property Turnaround; and The Likelihood of a Distressed Property Financial Recovery.	
ACTIONS ADVISED NOT TO CONSIDER	
Concessions	<ul style="list-style-type: none"> Rent reducing concessions Tenant improvement allowance concessions
Capital Improvements Feasibility	<ul style="list-style-type: none"> Assess the need for structural additions. Investigate the need for alterations to the building. Identify inefficient facility design.
The Likelihood of a Distressed Property Financial Recovery	
ACTIONS ADVISED NOT TO CONSIDER	
Demography	<ul style="list-style-type: none"> Studying the demographic composition of the local population Studying the population size Studying the territorial distribution of the local population

Concluding Remarks

While there is an abundance of literature on theoretical turnaround models, and which shows different reform strategies, decisions and actions conducted during a business or organisational turnaround, there is no known, formal theoretical turnaround model that shows strategies and activities conducted during the turnaround of a distressed commercial property. A theoretical, turnaround model concerning properties in distress, would be of interest to ‘opportunistic investing’ yield-hungry investors targeting real estate transactions involving ‘turnaround’ potential. The present research effort presented important actions that can be used to influence *The Likelihood of a Distressed Property Turnaround* and *The Likelihood of a Distressed Property Financial Recovery*.

The research provides beneficial and useful advice and guidelines to stakeholders involved in distressed property recovery projects, whether from the private or public sector. The important items, identified to have a positive influence on the dependent variables as shown the study results, could form part of a turnaround strategy or model undertaken by the various distressed property stakeholders. Conversely, the items shown in the results to have a non-significant or negative influence on the dependent variables, are items that the various distressed property stakeholders may need to investigate further, but not necessarily ignore. Furthermore, property managers could adopt the important items identified in the research, in the day-to-day property management tasks and functions as best practice for distress preventative measures.

The turnaround of distressed properties will not only present financial rewards for opportunistic investors but will have positive effects on the greater community and economy and, thus, social, and economic stability.

References

- Barnes Y (2016) *Around the world in dollars and cents*, Savills world research [Online] Available at: www.savills.co.uk/research_articles/188297/198667-0 (Accessed: June 2017).
- Bartlett MS (1950) Tests of significance in factor analysis. *British Journal of Statistical Psychology*, 3(2): 77-85.
- Bentler PM (1994) A testing method for covariance structure analysis. Lecture Notes-Monograph Series. *Multinational Analysis and Applications*, 24: 123-136.
- Blunch NJ (2008) *Introduction to Structural Equation Modelling Using SPSS and AMOS*, London: SAGE Publications, Ltd.
- Brady J (2016) *Strategy primer: Investing in Real Estate*. [Online] Available at: https://www.oaktreecapital.com/docs/default-source/default-documentlibrary/oaktreeinsights_real-estate_final.pdf (Accessed: November 2017).
- Cater J, Schwab A (2008) Turnaround strategies in established small family firms. *Family Business Review*, 21(1): 31-50.
- Cizek GJ, Rosenberg SL, Koons HH (2008) Sources of validity evidence for educational and psychological tests. *Educational and Psychological Measurement*, 68(3): 397-412.
- Chowdhury SD (2002) Turnarounds: A stage theory perspective. *Canadian Journal of Administrative Sciences. Revue Canadienne des sciences de l'administration*, 19(3): 249-266.
- Costello AB, Osborne J (2005) Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research and Evaluation*, 10(1): Article 7:1-9
- Cruz-Martínez G (2014) Welfare state development in Latin America and the Caribbean (1970s–2000s): Multidimensional welfare index, its methodology and results. *Social Indicators Research*, 119(3): 1295-1317.
- Finch WH (2020) Using fit statistic differences to determine the optimal number of factors to retain in an exploratory factor analysis. *Educational and Psychological Measurement*, 80(2): 217-241.
- Folkestone Limited (2015) *Investing in Real Estate – A Guide to Investment Strategies*. [Online] Available at: folkestone.com.au/wpcontent/uploads/2016/07/Investing-in-Real-Estate-A-Guide-to-Investment-Strategies-March-2015.pdf (Accessed: June 2017).
- Gahr C, Humphreys J, Proctor D, Yontar T (2017) *Non-Core Real Estate*; Meketa INVESTMENT GROUP. [Online] Available at: <https://meketa.com/wpcontent/uploads/2019/07/Non-Core-Real-Estate-WP.pdf> (Accessed: December 2017).
- Gilliam DA, Voss K (2013) A proposed procedure for construct definition in marketing. *European Journal of Marketing*, 47(1/2): 5-26.
- Hair JF, Black WC, Babin BJ, Anderson RE, Tatham RL, (2014a) *Multivariate data analysis*, (7th Ed). Essex, Pearson Education Limited, Harlow.
- Hair Jr JF, Black WC, Babin BJ, Anderson RE, Tatham RL (2010b) SEM: An introduction. *Multivariate data analysis: A global perspective*, 5(6): 629-686.
- Heale R, Twycross A (2015) Validity and reliability in quantitative studies. *Evidence-based Nursing*, 18(3): 66-67.
- Healey R (1989) *The Philosophy of Quantum Mechanics: An Interactive Interpretation*. Cambridge: Cambridge University Press.
- Jeyavelu S (2009) Organisational identity dissonance in organisational decline and turnaround. *Vision*, 13(2): 33-45.

- Jones Lang LaSalle (JLL) (2013) Advance – from Obsolescence to Resilience: Creating Value Through Strategic Refurbishment and Asset Management [Online] Available at: www.joneslanglasalle.co.uk (Accessed: November 2014).
- Jöreskog KG (1978) Structural analysis of covariance and correlation matrices. *Psychometrika*, 43(4): 443-477.
- Kaiser HF (1970) A second generation little jiffy. *Psychometrika*, 35(4): 401-415.
- Karakaya-Ozyer K, Aksu-Dunya B (2018) A review of structural equation modelling applications in Turkish educational science literature, 2010-2015. *International Journal of Research in Education and Science*, 4(1): 279-291.
- Kibui C, Iravo M (2017) Factors affecting the outcome of turnaround strategies adopted by Uchumi Supermarkets in Kenya. *International Journal of Social Sciences and Information Technology*, 3(3): 1952-1969.
- Kim H, Ku B, Kim JY, Park YJ, Park YB (2016) Confirmatory and exploratory factor analysis for validating the phlegm pattern questionnaire for healthy subjects. *Evidence-Based Complementary and Alternative Medicine: Vol. 2016, Article ID 2696019*.
- Lemeshko BY (2015) Chi-square-type tests for verification of normality. *Measurement Techniques*, 58(6): 581-591.
- Levy D, Peterson G (2013) The effect of sustainability on commercial occupiers' building choice. *Journal of Property Investment and Finance*, 31(3): 267-284.
- LoBiondo-Wood G, Haber J (2013) *Nursing Research, St Louis, Mosby Elsevier*.
- Lohrke FT, Bedeian AG, Palmer TB (2004) The role of top management teams in formulating and implementing turnaround strategies: a review and research agenda. *International Journal of Management Reviews*, 5(2): 63-90.
- Maheshwari SK (2000) Organizational decline and turnaround management: A contingency framework. *Vikalpa*, 25(4): 39-50.
- Mbandu A (2016) Turnaround strategies and their influence on the financial performance of organisations: A case study of Uchumi Supermarkets Ltd-Nairobi County branches. *International Journal of Finance and Accounting*, 1(1): 92-107.
- Micceri T (1989) The unicorn, the normal curve, and other improbable creatures. *Psychological Bulletin*, 105(1): 156-166.
- Nigerian Export Promotion Council (NEPC) (2010) *Distressed Real Estate Investing* [Online] Available at: https://cdn2.hubspot.net/hubfs/2529352/files/2010_05_nepc_distressed_re_investment_survey.pdf (Accessed: April 2017).
- Nunnally JC (1967) *Psychometric Methods*, New York, NY: McGraw Hill.
- Nunnally JC (1978) *Psychometric Theory: (2d Edit.)*. New York, NY: McGraw-Hill.
- Pandey SC, Verma P (2005) Organizational decline and turnaround: Insights from the WorldCom case. *Vision*, 9(2): 51-65.
- Pearce II JA, Robbins K (1993) Toward improved theory and research on business turnaround. *Journal of management*, 19(3): 613-636.
- Peterson RA (1994) A meta-analysis of Cronbach's coefficient alpha. *Journal of consumer research*, 21(2): 381-391.
- Pretorius M (2008a) Critical variables of business failure: A review and classification framework. *South African Journal of Economic and Management Sciences*, 11(4): 408-430.
- Rencher AC (2002) *Methods of multivariate analysis*. Hoboken: John Wiley & Sons.
- Reynaldo J, Santos A (1999) *Cronbach's alpha: a tool for assessing the reliability scales*. [Online] Available at: <http://www.joe.org/joe/1999april/tt3.php> (Accessed: April 2019).
- Rockwell S (2016) Identity processes to trigger turnaround in response to organizational decline. *International Journal of Business and Management*, 11(3): 11-14.

- Ross L, Mancuso J (2011) *Structuring a private real estate portfolio* [Online] Available at: https://russellinvestments.com/-/media/files/au/insights/2011_april_privrealstate.pdf (Accessed: August 2017).
- Sarstedt M, Hair JF, Ringle CM, Thiele KO, Gudergan SP (2016) Estimation issues with PLS and CBSEM: Where the bias lies! *Journal of Business Research*, 69(10): 3998-4010.
- Schendel DE, Patton GR, Riggs J (1976) Corporate turnaround strategies: A study of profit decline and recovery. *Journal of general management*, 3(3): 3-11.
- Schweizer L, Nienhaus A (2017) Corporate distress and turnaround: Integrating the literature and directing future research. *Business Research*, 10(1): 3-47.
- Sheppard JP, Chowdhury SD (2005) Riding the wrong wave: Organizational failure as a failed turnaround. *Long Range Planning*, 38(3): 239-260.
- Shuttleworth J (2015) Teaching the social issues of a sustainable food supply. *The Social Studies*, 106(4): 159-169.
- Svensson G (2015) Contemporary process to test the theory of a research model through covariance-based structural equation modeling in business research: is it science, quasi-science or just non-science? *European Business Review*, 27(4): 447-458.
- Tangpong C, Abebe M, Li Z (2015) A temporal approach to retrenchment and successful turnaround in declining firms. *Journal of Management Studies*, 52(5): 647-677.
- Tucker LR, MacCallum RC (1997) Exploratory factor analysis. Unpublished manuscript, Columbus: Ohio State University.
- Wang X, French BF, Clay PF (2015) Convergent and discriminant validity with formative measurement: A mediator perspective. *Journal of Modern Applied Statistical Methods*, 14(1): 83-106.
- Williams B, Onsmann A, Brown T (2010) Australian paramedic graduate attributes: A pilot study using exploratory factor analysis. *Emergency Medicine Journal*, 27(10): 794-799.
- Wolski R, Zaleczna M (2011) The real estate investment of insurance companies in Poland. *Journal of Property Investment and Finance*, 29(1): 74-82.
- Yong AG, Pearce S (2013) A beginner's guide to factor analysis: Focusing on exploratory factor analysis. *Tutorials in Quantitative Methods for Psychology*, 9(2): 79-94.
- Yu T, Richardson JC (2015) An exploratory factor analysis and reliability analysis of the student online learning readiness (SOLR) instrument. *Online Learning*, 19(5): 120-141.