

THE MEDIATING ROLE OF SOCIAL SUPPORT ON  
SELECTED TRAIT ENGAGEMENT AND  
RESILIENCE ON EMPLOYEE ENGAGEMENT



UNIVERSITI KEBANGSAAN MALAYSIA

THE MEDIATING ROLE OF SOCIAL SUPPORT ON SELECTED TRAIT  
ENGAGEMENT AND RESILIENCE ON EMPLOYEE ENGAGEMENT

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UNIVERSITI KEBANGSAAN MALAYSIA

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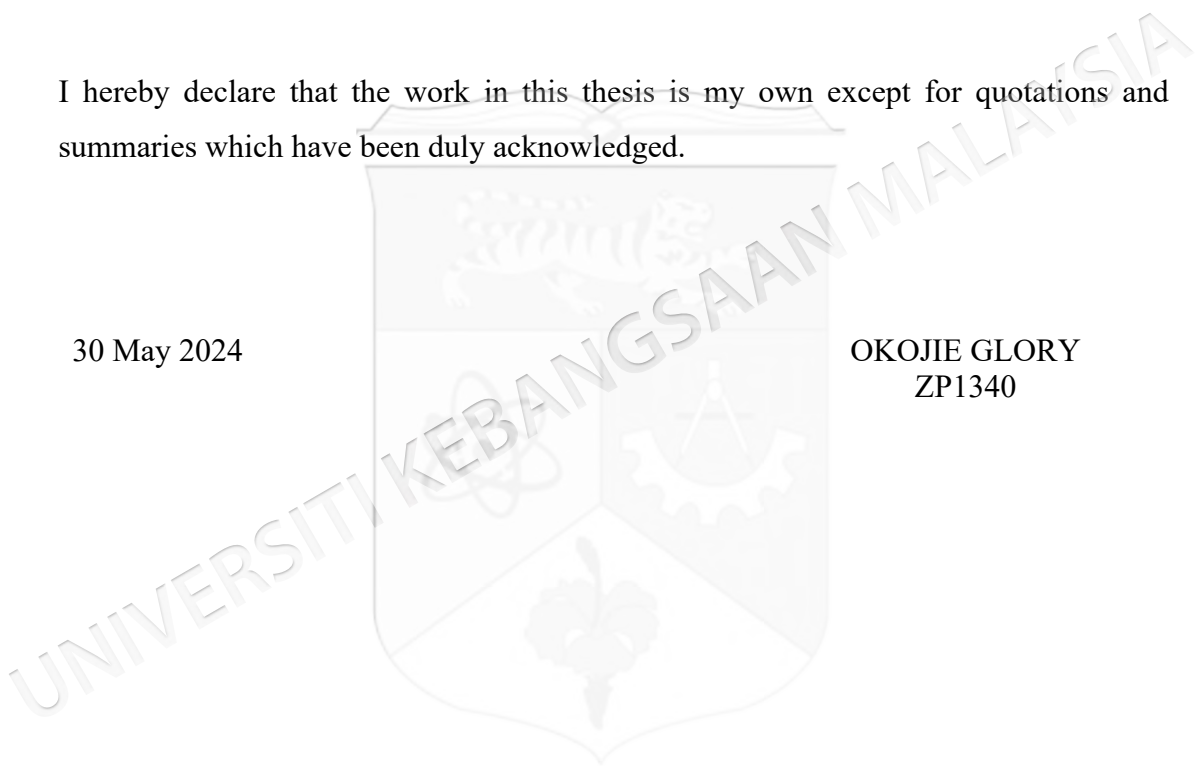
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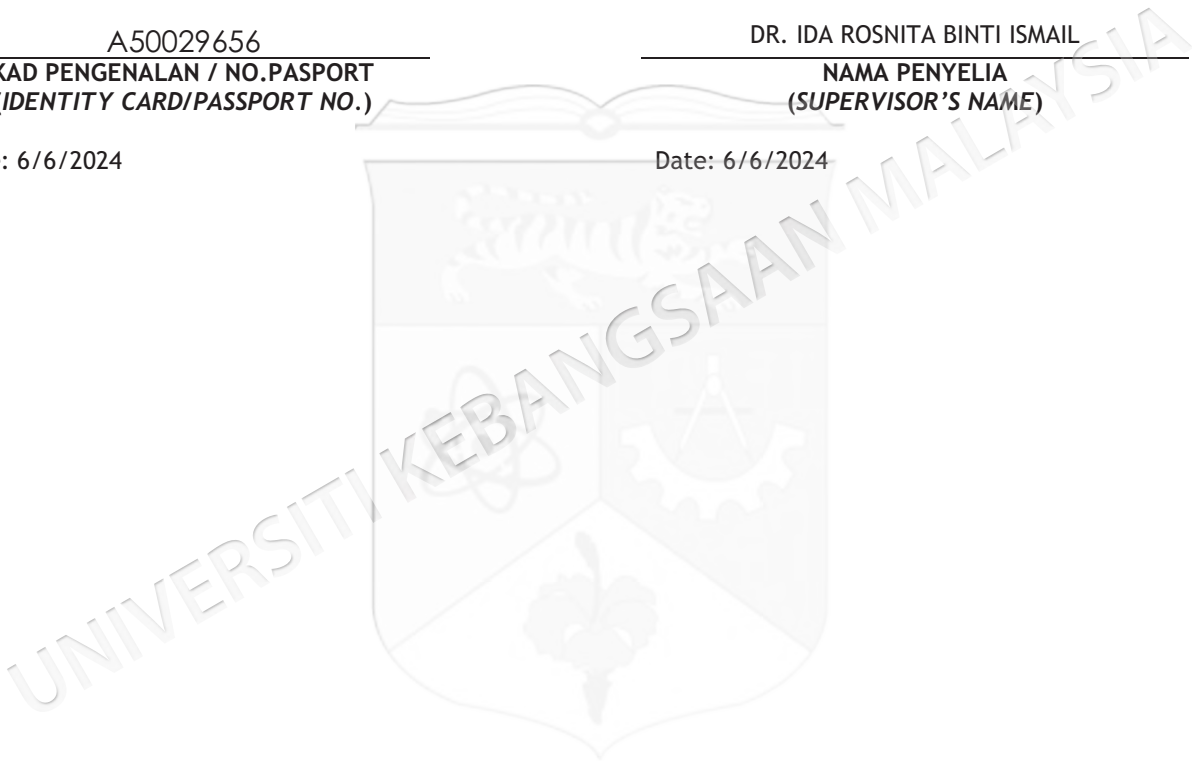
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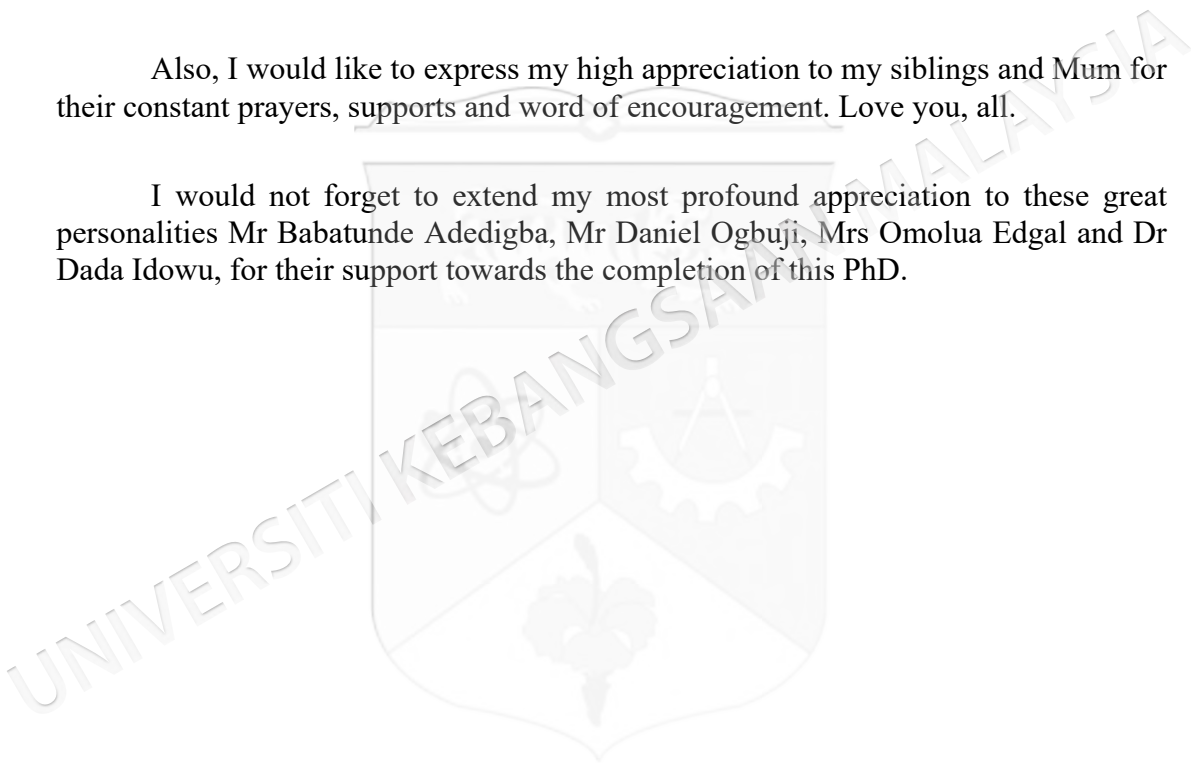
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## ABSTRAK

Keterlibatan pekerja telah menerima perhatian yang cukup besar daripada sarjana, ahli bidang, pengkaji, dan badan perundangan. Oleh kerana terdapat peningkatan terhadap tahap ketidakpastian dalam persekitaran perniagaan, keterlibatan pekerja telah menjadi satu konsep yang popular dalam pengurusan sumber manusia (HRM) sebagai satu kaedah untuk menangani isu ini dan meningkatkan produktiviti pekerja agar terus berdaya saing dalam era globalisasi yang semakin berkembang. Namun, isu utama mengenai bidang ini adalah kebanyakan kajian teori dan empirik terhadap keterlibatan pekerja hanya memberi fokus kepada faktor-faktor organisasi, dan tidak terlalu menitikberatkan faktor-faktor individu. Tambahan lagi, walaupun terdapat kajian terperinci terhadap personaliti dan daya tahan pekerja dalam perbincangan pengurusan, masih wujud kajian yang terhad terhadap bagaimana personaliti tertentu dan daya tahan pekerja memberi kesan terhadap tahap keterlibatan individu di tempat kerja. Oleh itu, kajian ini bertujuan untuk meneliti mekanisme dasar sokongan sosial terhadap perhubungan langsung antara personaliti autotelis, personaliti afektiviti positif, personaliti proaktif dan daya tahan pekerja terhadap keterlibatan pekerja menggunakan Teori Sumber Daya dan Model Permintaan dan Sumber Pekerjaan dalam kalangan jururawat di hospital-hospital awam di Nigeria. Satu reka bentuk kajian tinjauan secara keratan rentas digunakan untuk mengumpul data daripada 289 sampel jururawat berdaftar yang bekerja di hospital-hospital awam di Lagos, Nigeria. Hipotesis telah diuji menggunakan AMOS-27. Hasil kajian mendapati bahawa personaliti proaktif dan sokongan sosial mempunyai perhubungan yang signifikan dengan keterlibatan pekerja, manakala perhubungan langsung lain terhadap keterlibatan pekerja adalah tidak signifikan. Walaupun kesan pengantaraan sokongan sosial terhadap daya tahan pekerja dan keterlibatan pekerja mempunyai perhubungan yang signifikan, aspek-aspek pengantaraan lain adalah tidak signifikan. Secara teorinya, kajian ini menambah pengetahuan sedia ada bahawa sokongan sosial adalah mekanisme dasar di mana daya tahan pekerja boleh memberikan impak yang signifikan terhadap keterlibatan pekerja. Tambahan lagi, penggunaan Teori Sumber Daya sebagai teori asas antara personaliti proaktif dan keterlibatan pekerja adalah satu lagi sumbangan teori kajian ini. Selain itu, kajian ini memberikan implikasi secara praktikal mengenai kaedah yang paling berkesan kepada penggubal dasar dan jabatan sumber manusia untuk mengenal pasti, memilih dan merekrut pekerja yang mempunyai ciri-ciri personaliti yang tepat. Tambahan lagi, kajian ini juga menyediakan kaedah untuk membina konsep dan corak bagi meningkatkan daya tahan pekerja melalui sokongan sosial untuk membantu memupuk persekitaran kerja yang menarik.

## ABSTRACT

Employee engagement has received ample attention from scholars, practitioners, researchers, and consulting bodies. Due to the rising level of uncertainty in the business environment, employee engagement construct has become well-known in human resource management (HRM) as a means to address this need and to increase employee productivity to remain competitive in the ever-increasing globalisation. However, the fundamental issue around this subject matter is that many theoretical and empirical studies on employee engagement have mostly concentrated on organisational factors, with less focus on individual factors. Also, despite eminent literature on personality and employee resilience in the management discourse, there are still limited studies on how specific personalities and employee resilience affect individuals' engagement levels at work. Therefore, this study seeks to examine the underlying mechanism of social support on direct relationships between autotelic personality, positive affectivity personality, proactive personality and employee resilience on employee engagement using Conservation of Resources Theory and the Job-Demand and Resources Model among nurses in public hospitals in Nigeria. A cross-sectional survey research design was adopted for this study to collect data from a sample of 289 registered nurses working in public hospitals in Lagos, Nigeria. The hypotheses were tested using AMOS-27. The findings indicated that proactive personality and social support were significantly related to employee engagement, while other direct relationships to employee engagement were not significantly related. Whereas the mediation effect of social support on employee resilience and employee engagement was significantly related, other mediated paths were not significant. Theoretically, this study adds to the existing knowledge that social support is an underlying mechanism under which employee resilience can significantly impact employee engagement. Also, using the Conservation of Resources Theory as an underpinning theory between proactive personality and employee engagement is another theoretical contribution of this study. Furthermore, this study provides policy-makers and human resource departments with practical implications on the most proficient method required to identify, select and recruit workers with the right personality traits. Also, this study provides how to build concepts and patterns to improve employee resilience through social support to help foster an engaging work environment.

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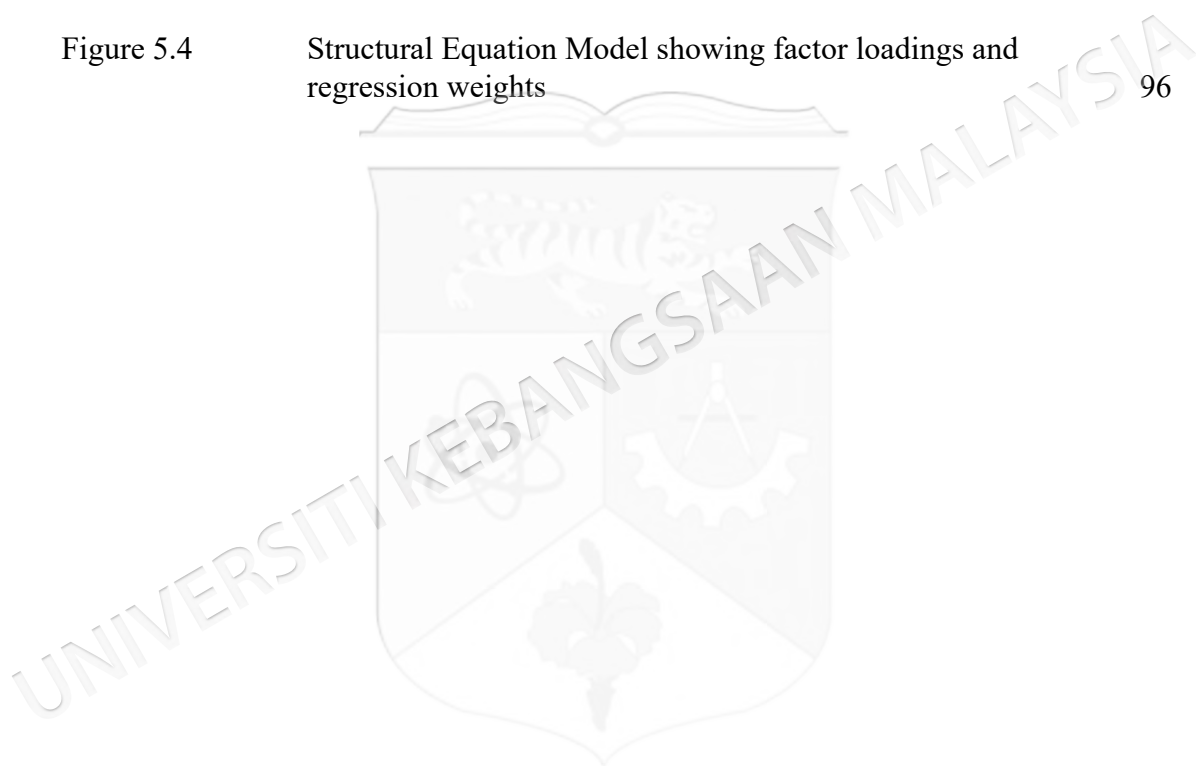
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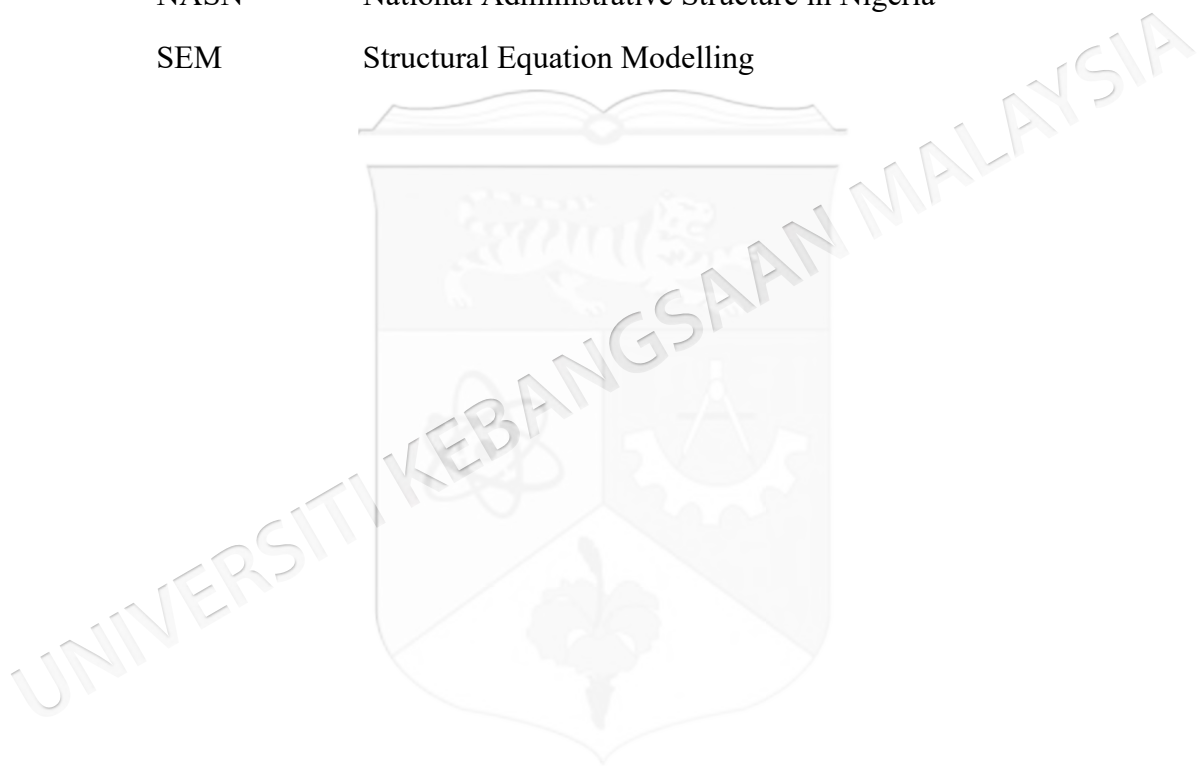
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**LIST OF ABBREVIATIONS**

CFA	Confirmatory Factor Analysis
COR	Conservation of Resources Theory
EFA	Exploratory Factor Analysis
JD-R	Job Demands-Resources Model
HFMAA	Healthcare Facilities Monitoring and Accreditation Agency
NANNM	National Association of Nigeria Nurses and Midwives
NASN	National Administrative Structure in Nigeria
SEM	Structural Equation Modelling



## **CHAPTER I**

### **INTRODUCTION**

#### **1.1 GENERAL INTRODUCTION**

The introductory part of this research discusses the background of the study that elaborates the conceptualised meaning of the phenomenon. It further presents the problem statement, which also gives the rationality for carrying out this study and justifications for the problem. Research objectives and questions are provided to guide the research procedure. The operational definitions of the terminology utilised are provided as a conclusion to the chapter.

#### **1.2 RESEARCH BACKGROUND**

The continuously up-surging globalisation level makes today's business environment more multifaceted and competitive to attain more market shares and maintain business growth. The rising uncertainty level in the business surroundings of modern organisations requires organisations to regularly adjust to imminent changes, invest in the workforce, provide different needs of the workforce, manage their talents and encourage innovative behaviours among their employees (Errida & Lotfi 2021). In particular, human resource management (HRM) has been pressurised to create effective tools, strategies, and methods to attract, keep, and grow competent workforces in companies for advancement and survival (Saks 2022). According to Mhlanga et al. (2019), organisations require workforces that are innovative, creative, proactive, adaptive to change and endure challenges. As a result, employee engagement constructs gain widespread recognition in human resource management to boost employee productivity. This is because engaged employees help to achieve predetermined organisational goals to stay competitive in the era of ever-increasing globalisation (Albrecht & Marty 2020; Saks 2022). Also, to increase workers' productivity and

chances of attaining predetermined organisational objectives, researchers have called for a more positive strategy focusing on the workforce and workers' engagement (Albrecht & Marty 2020; Schneider et al. 2018).

Employee engagement has received ample attention from scholars, practitioners, researchers, and consulting bodies (Saks 2022). This is because the engaged employees know the environment of the organisation; therefore, they put in a voluntary effort and work with other co-workers to increase job performance (Albrecht et al. 2021). As such, engaged employees are presumed to contribute positively to their organisation by attracting and retaining new customers and supporting co-workers. Furthermore, according to Hewitt (2013), engaged employees positively speak, stay, and strive to do better than the organisation's requirements. They are ready to achieve set organisational goals by doing extra responsibilities. As a result, they are effective, dedicated, creative, satisfied and contribute to organisational outcomes that implicitly have a favourable impact on a country's economy (Bakker & de Vries 2021). Consequently, today's organisations need engaged individuals who exhibit self-assurance, high energy levels, and genuine ardour for their work.

Taking clues from the work of Gallup (2020) on global employee engagement level, only 15% of organisation workforces are genuinely engaged, 85% of employees are not engaged, and 18% are actively disengaged at work. Moreover, the engagement level globally is declining in developed and developing nations, as disengaged employees outnumbered the engaged ones at an estimated ratio of 2:1 (Gallup 2020). Also, Gallup's global study on engagement level highlighted that in the United States of America (USA), 32.0% of employees were engaged, 50.8% were purportedly disengaged, and 17.2% were actively disengaged at the workplace. The study further reported that in Australia and New Zealand, 14% of employees were engaged, 60% were not engaged, and 16% were actively disengaged. The engagement and disengagement levels in China were 6% and 68%, respectively. Similarly, Malaysia records 59% engaged employees, while 16% of Malaysia workers are disengaged and dissatisfied with their work.

According to Adeloje et al. (2017), Nigeria has one of the largest stocks of human resources for health in Africa, yet the bulk of doctors, midwives and nurses are

still too low to effectively and efficiently deliver needed health services due to low engagement among the workforce. This low engagement carries significant implications, especially in public hospitals, where the nursing profession is endangered. This situation seems to have impeded and has perhaps consequently led the health sector to be on a continuous downward trend (Okafor & Chimereze 2020). As a result, the health system has virtually become dysfunctional, and there seems to be an erosion of ethics and moral decadence, resulting in low-quality service and a lack of patient care (Okafor & Chimereze 2020). According to Nwachukwu et al. (2022), to solve this issue facing the engagement level in Nigeria, the government needs to design and implement an engagement strategy, which will assist in actualising positive results of having an engaged workforce. Thus, this current study intends to establish and test a conceptual model that explains the mediating role of social support on selected trait engagement and resilience on employee engagement.

### **1.3 PROBLEM STATEMENT**

In response to the positive outcome of an engaged workforce, the factors responsible for impacting employee engagement become crucial to researchers and practitioners (Saks & Gruman 2014; Saks 2022). Theoretically, diverse factors contribute to employee engagement, and such factors determine how an employee gets engaged with the organisation and given jobs. However, the organisation factor has received the majority of attention in theoretical and empirical research on the topic of employee engagement, while individual factors have received less attention (al Mamari & Groves 2023; Othman et al. 2019; Prieto-Díeza et al. 2022). According to Mhlanga et al. (2019), an all-encompassing approach that considers both organisational and individual factors is required to understand and address the issues confronting employee engagement worldwide thoroughly. This is because both the organisational and individual factors have active roles to play in predicting employee engagement (Macey & Schneider 2008; Prieto-Díeza et al. 2022). Also, Albrecht and Marty (2020) stated that investigating individual factors such as employee personality on employee engagement is paramount because ignoring these factors may hinder organisations' attainment of set goals and objectives.

Previous studies on individual factors have mainly focused on state-like personal resources such as self-efficacy, optimism, emotions (Contreras et al. 2020), religiosity (Abualigah & Koburtay 2023), and personal resources such as the Big Five personality trait (Ansari 2020). However, beyond these individual factors, less studies have focused on trait personality, which is also known as autotelic personality (Callea et al. 2022; Kanten & Arda 2021), positive affectivity personality (Fukuzaki & Iwata 2023; Ma et al. 2023), and proactive personality (Xuehui et al. 2021). In addition, there is still a limited study on how these specific personalities affect individual levels of engagement in their work.

The rise of uncertainty in today's organisations requires self-motivated, innovative employees who can endure challenges faced at work (Akbari et al. 2023). Studies have shown that individuals who possess autotelic personality are self-motivated, innovative and involved in activities that help in skill development and goal accomplishment (Tse et al. 2021). However, despite the importance of autotelic personality in organisations, there remains a paucity of evidence on the relationship between autotelic personality and employee engagement (Kanten & Arda 2021; Young & Steelman 2017). This is because a majority of studies focused on the effect of general individual differences (e.g. big five, optimism, self-efficacy) on engagement (Contreras et al. 2020). This has led to limited studies on the direct relationship between autotelic personality and employee engagement and the mechanisms responsible for the relationship between autotelic personality and employee engagement. Therefore, in line with the COR theory (Hobfoll 1989), this study will examine the relationship between autotelic personality and employee engagement and the mechanisms responsible for the relationship between autotelic personality and employee engagement.

The role of positive affectivity personality in building an organisation is imperative because employees with this personality show positive emotions toward the organisation (Shen et al. 2022). Also, Hong et al. (2021) added that positive affectivity personality may also influence resources, such as social (e.g., social support networks), physical (e.g., better health), and intellectual and psychological resources (e.g., resilience, optimism, and creativity). Despite the aforementioned importance of positive affectivity personality in an organisation, the empirical studies on the relationship between positive affectivity personality and employee engagement need further

investigation. The majority of available research on the impact of positive affectivity personality on work outcomes has concentrated on various work outcomes such as high-performance HR practices (Mostafa 2017a), job satisfaction (Sang et al. 2019), job performance (Ma et al. 2023), and psychological empowerment (Mostafa 2017). It is unknown what role positive affectivity personality employees perform and the mechanisms underlying the relationship between positive affectivity personality and employee engagement (Hong et al. 2021; Ma et al. 2023). Therefore, in accordance with the COR theory (Hobfoll 1989), this study will investigate how positive affectivity personality is related to employee engagement and the mechanisms responsible for their relationship.

The role of proactive individuals in an organisation cannot be underestimated because they go beyond certain task requirements and take a proactive approach to their work by taking the initiative to pursue their goals (i.e. proactive behaviour). However, despite the critical and promising progress among researchers in examining proactive personality's effect as an antecedent of individual and organisational outcomes, crucial areas remain unknown (Zhang et al. 2021). This is because studies have not sufficiently focused on the relationship between proactive personality and employee engagement and the mechanisms through which proactive personality improves an individual's engagement (Caniëls et al. 2018; Xuehui et al. 2021). However, different studies have shown that there may be mediating variables underlying the relationship between proactive personality and employee engagement (Dijkers et al. 2010; Sheoran et al. 2023). To address this, researchers called for a proper investigation of the direct relationship between proactive personality and employee engagement and the mechanisms variable that mediates the relationship between proactive personality and employee engagement (Prokesova et al. 2019).

Furthermore, there is a rising interest in employee resilience in the context of the workplace and how it affects organisational outcomes (Malik & Garg 2017; Wang & Wang 2023). However, despite prominent literature revolving around employee resilience in the management discourse, human resource management has not fully recognised employee resilience as an ability that can be instilled among employees and how to properly utilise it in today's organisation (Kuntz et al. 2017; Tonkin et al. 2018). Most current studies on employee resilience treat employee resilience as a trait and a

coping mechanism (Chikobvu & Harunavamwe 2022; Malik & Garg 2017; Ojo et al. 2021). Also, most previous studies have thus far theorised employee resilience as a resource developed and exhibited in response to adversity rather than as a state and developable capacity which can be promoted and encouraged at work to ensure innovation and preparation for future crises (Gröschke et al. 2022; Kuntz et al. 2017). Therefore, recent studies have urged that employee resilience be studied as a developable capacity to guarantee favourable work outcomes through organisational enablers (Chikobvu & Harunavamwe 2022; Zhu et al. 2019). Therefore, in line with the JD-R Model (Bakker & Demerouti 2008), this present study will examine how employee resilience relates to employee engagement, which is a positive work outcome.

According to the COR (Hobfoll 1989), job resources such as social support and feedback play a significant role in underpinning an individual positive image in fostering a positive work outcome. That is, an employee who possesses a personality trait and receives enough support, attention, resources, and information from the organisation is more likely to feel obligated to direct performance towards accomplishing the organisational outcomes (Wang & Lei 2021). Despite its importance as an intervention by which an organisation can create a good employee image towards work outcomes, the role of social support as the underlying mechanism remains unknown. This is because most previous research has focused more on the direct effects of social support congruent with autotelic personality (Macey & Schneider 2008), positive affectivity personality (Asim 2015), proactive personality (Li et al. 2014) and employee engagement (Setiabudhi et al. 2021). Also, previous studies on social support as a mediator between personality traits and work outcomes focused on other personality traits in relation to other work outcomes, such as Big Five and subjective well-being (Zhu et al. 2013), Big Five and mental health (Lewis et al. 2014), and Personality and Physical Functioning (Clark et al. 2022)

Also, the JD-R Model (Bakker & Demerouti 2008) states that social support will be crucial in helping employees develop resilience. According to earlier research, an organization's capacity to develop and maintain employee resilience depends on managing resilience-enabling policies and practises (Chikobvu & Harunavamwe 2022; Malik & Garg 2017; Ojo et al. 2021). Despite the imperative of social support as an enabler of employee resilience, studies have not focused on social support as an

underlying mechanism linking employee resilience to employee engagement. Thus, studying social support as a plausible fundamental mechanism mediating the relationship between employee resilience and engagement would be fascinating.

Therefore, this study aims to investigate the direct relationship between traits like autotelic personality, positive affectivity personality, proactive personality, and employee resilience on employee engagement among nurses in Nigerian government hospitals. Additionally, the COR theory and the JD-R Model will be utilised to explore the underlying mechanism of social support on autotelic personality, positive affectivity personality, proactive personality, and employee resilience on employee engagement.

#### **1.4 RESEARCH QUESTION**

The following research question will be answered in this study.

RQ1 Do autotelic personality, positive affectivity personality, proactive personality and resilience affect employee engagement?

RQ2: Do autotelic personality, positive affectivity personality, proactive personality and resilience affect social support?

RQ3: Does social support affect employee engagement?

RQ4: Does social support mediate the relationship among autotelic personality, positive affectivity personality, proactive personality and resilience affect employee engagement?

#### **1.5 OBJECTIVE OF STUDY**

The following objectives shall be achieved in this study

- i. To examine the effects of autotelic personality on employee engagement directly and indirectly through social support.

- ii. To examine the effects of positive affectivity personality on employee engagement directly and indirectly through social support.
- iii. To examine the effect of proactive personality on employee engagement directly and indirectly through social support.
- iv. To examine the effect of employee resilience on employee engagement directly and indirectly through social support.

## **1.6 CONTRIBUTION OF STUDY**

This study contributes both empirical and theoretical contributions to the academic literature. Beyond the theoretical and empirical contributions, this study also suggests practical contributions for HR managers, the health sector and government practitioners.

### **1.6.1 Theoretical contributions**

Theoretically, this study makes several significant contributions to the field of employee management. One contribution of this study is adding to the existing knowledge of employee engagement literature by examining the effect of autotelic and positive affectivity personality on employee engagement. This study's result will align with the view that trait engagement or individual differences factors may predispose employees to be engaged or disengaged at work (Kahn 1990; Macey & Schneider 2008). The result of this study will be notable because minimal empirical studies have investigated engagement-specific variables such as autotelic and positive affectivity relationships with employee engagement. Most studies on employee engagement focused on the Big-five personality traits (Ansari 2020) or state-like personal resources such as self-efficacy, optimism and emotional stability (Abualigah & Koburtay 2023; Contreras et al. 2020).

Also, analysing resilience as a capacity that can be developed and supported at work will advance our understanding of the literature on employee engagement. Most prior studies on resilience have theorised employee resilience as a trait, a stable resource and a coping mechanism developed and exhibited in response to adversity (Gröschke

et al. 2022; Kuntz et al. 2017). As a result, this study suggests that employee resilience can be fostered and improved by utilising potential organisation enablers. The results of this study will provide empirical support for the claim made in earlier studies that resilience is a capacity that can be cultivated among employees through organisational enablers and utilised in today's workplaces (Chikobvu & Harunavamwe 2022; Ojo et al. 2021).

Furthermore, this study contributes significantly to understanding employee engagement by identifying social support as an underlying mechanism through which specific traits-engagement and resilience correlate to employee engagement. Most studies on social support as a mediator between specific trait engagement to work outcomes focused on other personality traits in relation to other work outcomes, such as Big Five and subjective well-being (Zhu et al. 2013), Big Five and mental health (Lewis et al. 2014), Big Five personality and loneliness (Zhang 2015), Personality and Physical Functioning (Clark et al. 2022). Also, studies on social support as a mediator between employee engagement and resilience have not given it enough consideration. This is because prior studies have concentrated on mediating factors, such as High-performance work systems (Cooke et al. 2016) and positive affectivity (Wang et al. 2017). Therefore, including social support as a mediator between specific trait engagement, resilience, and employee engagement is another contribution.

Also, using the COR theory as an underpinning theory between trait engagement and employee engagement will be another theoretical contribution of this study. This is because previous studies on personality traits and employee engagement focused on other theories, such as the JD-R model (Breevaart & Pletzer 2023) and the Big Five Model (Ansari 2020). As such, this study will extend the COR theory to explain why selected trait engagement is related to employee engagement.

### **1.6.2 Practical contribution**

Practically, there is a need to study the utility of Western concepts of employee engagement in a developing nation environment such as Africa. According to Nwachukwu et al. (2022), Nigeria and other African organisations fail to meet organisational expectations owing to the absence of organised support for the

employees and the development of organisational outcomes.. Therefore, contributions from this study may aid developing countries' governments, policy-makers, and particularly the HR departments in determining how they could engage the workforce toward achieving the organisational goals.

Also, significant knowledge that may emerge from this study might assist practitioners and managers in understanding why employees in the health sectors will choose to be engaged or disengaged at work. By examining personality attribute effect on employee engagement; this study will assist management, especially those in the health sectors, in the most proficient method to encourage right personality traits to help foster an engaging work environment. If human resource management has a basic understanding of the effects of personality attributes on employee engagement, this will prompt more effective job design, training and development practices. In turn, it helps the organisation to bring in highly engaged workers who are likely to be highly engaged and exhibit a citizenship behaviour that benefits the organisation and individuals.

Furthermore, this study offers counsellors, personnel managers, and supervisors an essential in-depth understanding of building patterns and concepts to increase employee resilience. The changing nature of the labour market requires employees to successfully adapt to shifting structures and policies to function effectively under pressure, which, in turn, puts more pressure on them. According to Adeloje et al. (2017), employees in the health sector work in a stressful atmosphere with intellectually demanding jobs, which causes higher workplace stress and turnover rates. Organisations must decide how to respond to the competitive and alarmingly demanding work conditions in order to retain a workforce that is not only driven to go above and beyond the call of duty but also successfully adapts to changing environmental needs. Therefore, in the current economic climate where layoffs, retrenchments, and increasing personnel assignments burden employees' morale and capabilities, it can be advantageous for organisations to build employee resilience. Thus, resilience may serve as a means of creating and fostering engaged workers who can better mobilize their resources to take on new challenges and give fresh approaches to managing stressful workplace situations.

Lastly, the findings of this study will also help management choose the most effective way to foster coworker support among employees by evaluating the role of social support. Due to the rise in group-based work structures for task execution, the importance of social support in an organisation cannot be overstated. Therefore, the organisation must create cultures that can positively encourage good employee relationships. Furthermore, sustaining employee engagement requires encouraging support, which builds resilience and proactive behaviour among employees.

## **1.7 KEY DEFINITION OF TERMS**

### **1.7.1 Employee engagement**

Schaufeli et al. (2002) defined engagement as a positive fulfilling and work-related state of mind that is characterised by vigor, dedication, and absorption.

### **1.7.2 Autotelic personality**

According to Csikszentmihalyi (1990), autotelic personality refers to a tendency to do things because doing it is the reward in and of itself rather than engaging in the activity with the expectation of receiving benefits from external source.

### **1.7.3 Proactive personality**

According to Bateman and Crant (1993) Proactive Personality is an individual tendency to influence environment and to make a meaningful change.

### **1.7.4 Positive affectivity personality**

According to Watson et al. (1988), positive affectivity personality reflect to the extent to which a person feels enthusiastic, active, and alert toward activities.

### **1.7.5 Employee resilience**

Employee resilience is an employee ability, which is supported by the organisation, to use resources for continuous growth and adaptation at work, even in challenging situations (Näswall et al. 2015).

### **1.7.6 Social support**

According to Caplan et al. (1975), social support is described as attachments between people, which offer guidance, encourage mastery of emotions, provide feedback, validate identity, and nurture competency.

### **1.7.7 Trait engagement**

Trait engagement is the extent to which employees have a general positive attitude towards work (Macey & Schneider 2008).

## **1.8 SCOPE OF THE STUDY**

This study seeks to examine the underlying mechanism of social support on direct relationships between autotelic personality, positive affectivity personality, proactive personality and employee resilience on employee engagement using the Conservation of Resources Theory and the Job-Demand and Resources Model among nurses in public hospitals in Lagos, Nigeria. Respondents in this study were drawn from the 26 registered public hospitals and 272 public healthcare centres in the state of Lagos. Out of the 36 States in Nigeria, Lagos has been selected as the scope of this study. The choice of Lagos state is that it is informed by accessibility, distance, data availability and high numbers of public health facilities with a great number of nurses needed for this study. Also, the quality of services in public hospitals in Lagos state still needs to improve, especially the attitude of the nurses toward patients. The outcome of this study will be used to offer solutions to the problem of employee engagement among nurses in public hospitals in Lagos, Nigeria.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter examines prior literature by various authors relating to the purpose of the study, which is to investigate the mediating role of social support effects on the employees' trait engagement and employee resilience on employee engagement in public hospitals in the western region of Nigeria. The examined literature was organised in accordance with the study's aims, and it was discussed under the following subheadings: theoretical framework, analysis of prior research on the research constructs, and employee involvement in Nigeria's economy.

#### **2.2 THEORETICAL FRAMEWORK**

Although there are numerous employee engagement theories, primarily for this study, the underpinning theories used are the Conservation of Resources Theory (Hobfoll 1989) and the JD-R model (Bakker & Demerouti 2008). Unlike other theories of employee engagement, they provide a theoretical foundation to explain why a particular employee chooses to become more or less engaged in their work and organisation through the intervention of the organisation's enabler. These underpinning theories are needed to understand how employee engagement is developed and cultivated.

##### **2.2.1 The Conservation of Resources Theory (Hobfoll 1989-2003)**

The Conservation of Resources Theory (COR) is a motivational theory that clarifies the copious of human behaviour based on the evolution need to obtain, acquire and conserve resources for survival (Hobfoll 1989). According to the COR theory, individuals can build sophisticated tools to guarantee their survival and have the benefit

of creating a language to communicate, which helps in social connection and interaction. Thus, individuals utilise crucial resources not just to react to stress but also to build, reserve and sustain resources for the nearest future need. Also, the acquiring and retaining of material, personal, and social resources make individuals, families, and organisations to have the feeling that they are equipped to address stressful challenges (Hobfoll 2002).

According to Hobfoll (1989), resources are those personal characteristics, social support, energies or conditions that are esteemed by the individual or serve as a way to accomplish and address stressful difficulties at work. Personal characteristics such as personality traits act as personal resources helping stress resistance and may influence how employees react and meet the needed performance. Social resources such as social support refer to social interaction or relationships that offer employees real help or a feeling of connection to a person, group or organisation. Social resources also serve as instrumental and self-defining functions necessary to protect a stable self-awareness.

Furthermore, COR theory states that, generally, resources exist in caravans. That is, the presence of one resource is a strong predictor for the existence of other resources, while the absence of one resource increases the probability that other resources are also absent. This idea denotes that resources cannot be viewed as independent from each other or act in isolation but instead are connected through a protective influence (Hobfoll 2001). In support of this, Hobfoll (2001) provided an example that having a feeling of self-efficacy is probably connected to the availability of social support. The availability of social support helps the individual to recline to demand in the organisations.

Also, COR theory explains the reciprocal relationships between personal resources, job resources and employee engagement. According to the theory, personal resources and job resources function as antecedents and outcomes of employee engagement. Also, employee engagement functions as the outcome variable of both personal resources and job resources. In line with this, the COR theory supports the idea that personal resources enable employees to utilise job resources towards engagement (Hobfoll et al. 2003, 2018). Also, the theory stated that the availability of

resources in the organisation would enable employees to bring in their full selves. In support of this, Macey and Schneider (2008) stated that an employee who possesses autotelic, positive affectivity and proactive personality would bring their full selves to work effectively through a supportive organisation.

Grounded in the COR theory, social support is expected to play a vital role in creating an engaging environment. Thus, an individual is expected to build a positive attitude when organisations support and give attention and resources to the employees, which, in turn, leads to positive work outcome. This is in line with the COR theory that specifies existing resources in the organisation are instrumental in gaining further resources (e.g. positive attitude of the employee).

### **2.2.2 Job Demands-Resources (JD-R) Model**

The job demands-resources model (JD-R model) was established by Bakker and Demerouti (2008), which gained widespread recognition amongst the research community in the engagement literature (Bakker & de Vries 2021). Numerous studies on engagement have utilised the JD-R Model as an explanatory framework (Kato et al. 2021). As indicated by the model, job characteristics can be divided into two distinct classifications: job demands and job resources.

According to Demerouti and Bakker (2011), job demands are those aspects of a job that need physical or psychological effort to complete duties on a social, organisational, or psychological level. Job demands include shift work, role ambiguity, high work pressure and physical demands. Contrarily, job resources are those resources that are readily available (such as job control, performance feedback, participation in decision-making and social support) that lessen the effects of job demands while promoting employees' personal growth, learning and development.

The primary evidence of the JD-R framework is that job demands and job resources impact engagement through some processes (Crawford et al. 2010). Job resources play a motivational role in lowering burnout by fostering an employee's positive approach, perspective, and attitude towards their work, raising engagement levels (Bakker & de Vries 2021). This can be explained through the perspective of

intrinsic or extrinsic motivational roles because they are tools for achieving work objectives. The availability of job resources in an organisation intrinsically motivates an employee's psychological needs by encouraging growth and development. Also, the availability of these resources extrinsically inspires employees by supporting their accomplishment of role-related goals and objectives (Bakker & de Vries 2021).

Recently, personal resource was introduced into the JD-R model. According to Bakker and Demerouti (2008), a personal resource is a person's positive self-perception, which is typically linked to resilience and gives them the power to control and influence their surroundings. Employees who exhibit these traits (i.e. self-esteem, optimism and self-efficacy) are likely to be more engaged because they influence their workplace (Contreras et al. 2020; Van Wingerden et al. 2017). Personal resources have been discovered to be significantly related to job resources and employee engagement (Bakker & Demerouti 2008; Chen & Fellenz 2020). The personal or interpersonal resources an organisation provides its employees impact their engagement.

Although two theories will be used in this study, the grand theory of this study will be the Conservation of Resources Theory (COR). This is because this theory supports the main argument behind this study and explains the overall framework for the purpose of the study.

### **2.3 EMPLOYEE ENGAGEMENT**

Despite the scholarly argument of the positive outcome of the engaged employee in an organisation, there are still wide research gaps and challenges in the literature on employee engagement. There is conceptual confusion as to the definition of employee engagement, the antecedent of employee engagement, and whether it is an attitude or behaviour (Iddagoda & Opatha 2020; Pincus 2023). Although various meanings of employee engagement have been derived from practitioner and academic-grounded literature, there seems to be an absence of all-inclusive definitions of the construct. It confuses and hinders the development and understanding of the construct within organisations.

According to Iddagoda and Opatha (2020) and Pincus (2023), employee engagement is a hardly understood construct, despite being a prominent word in the management laps. This is because of the improper understanding of the construct both from the perspective of scholars and practitioners (Pincus 2023). The practitioners aim for desired outcomes such as commitment, productivity, and employee retention. Also, they concentrate more on group and macro levels to improve the efficiency of the workgroup. However, the academics' goal is clear, has a clear meaning, and the construct's measurement is well-established. The academics concentrate on the individual and the micro level to better understand the antecedent variables influencing employee engagement and its connection to outcome variable (Saks 2006; Schaufeli 2014).

The majority of studies on employee engagement from the academic viewpoint have been solely carried out by psychologists (Kahn 1990; Leiter & Maslach 2017; Maslach et al. 2001). However, employee engagement has become one of the most important topic getting consideration from human resources management (Albrecht & Marty 2020; Saks 2022). This consideration brought about the diversity of terms used to refer to the construct (e.g., work engagement, employee engagement, staff engagement, job engagement, personal engagement, organisational engagement and just engagement).

Kahn (1990) suggested the earliest definition of employee engagement in the academic literature. The definition describes how individuals personally engaged and disengaged at their place of work. Kahn defined employee engagement as the connecting of organisation members' selves to their work duties. In engagement, people use varying degrees of their cognitive, emotional and physical selves in work role performances

The aspect of cognitive in employee engagement is concerned with employees' view about organisational factors such as how it is driven by whom and the working condition in the organisation. The aspect of emotional; deals with the perception of employees about each of those three factors (i.e., physically, cognitively and emotionally) and whether the trio has positive or negative attitudes toward co-workers,

the leaders and the organisation. The aspect of the physical; deals with the energies employees utilise to achieve their roles and function toward attaining organisational goals. According to Kahn (1990), self and role have some dynamic negotiable relationship in which a person directs personal resources into role behaviours and expresses self within such roles. Kahn identified and illustrated three psychological conditions that promote employee engagement at the workplace through meaningfulness, safety, and availability. The three psychological conditions establish satisfaction and recognition that energises employees to get engaged with work towards organisation outcomes.

Psychological meaningfulness is associated with work elements, which create incentives or disincentives to be engaged personally. For example, when employees sense that their performance relates to the organisation's values or objectives, such sense of feeling will motivate them to accomplish those values and objectives (Kahn 1990; Khusanova et al. 2021). Furthermore, Kahn stated that psychological safety is believed to be associated with elements of social systems that create non-threatening, predictable, consistent and reliable social situations for the immediate employees. The factors that impact psychological safety are management support, interpersonal relationships, organisational culture, and intergroup flow. While psychological availability is a sense of possessing the physical, emotional, and psychological resources necessary to assist them to be engaged in job performances. The three factors that can affect psychological availability are the consumption of emotional energy, exhaustion of physical energy, and personal insecurity. An amalgamation of these psychological conditions shapes how people inhabit their roles.

Furthermore, Kahn (1990) defined personal disengagement as the “decoupling of self from work roles. It involves the defence and withdrawal of self from performing work roles, thereby becoming a threat to other employees who are ready to be engaged. However, Kahn's definition has weaknesses because he explored the psychological conditions without considering the theoretical conceptualisation of engagement. Also, he focused on qualitative and did not provide a quantitative scale by which engagement could be measured. Therefore, his concept and measurement of employee engagement have been subject to criticism.

May et al. (2004) carried out a field study to empirically examine Kahn's psychological condition's relationship with engagement. They found that the psychological conditions (meaningfulness, availability and safety) were positively linked to employee engagement. According to May et al. (2004), job enrichment and role fit positively influence psychological meaningfulness, while a supportive supervisor relationship with a rewarding co-worker positively influences psychological safety, whereas personal resources positively influence psychological availability. Therefore, Kahn (1990)'s engagement framework offers a specific multidimensional framework reflecting the fundamental situation of the willingness of employees to be engaged, which is a foundation for other frameworks of engagement.

Based on Kahn's findings, Maslach et al. (2001) reintroduced the notion of employee engagement; their research on engagement follows a different yet related methodology. They defined engagement as the positive opposite of exhaustion, cynicism, and lack of efficacy. This tripartite entire is referred to as the three burnout dimensions. The exhaustion component signifies the person's stress level. It alludes to sensations of being physically and emotionally drained and stretched. The cynicism is an indication of the interpersonal context aspect of burnout. It denotes a negative, callous, or excessively detached response to various aspects of employment. While the lack of efficacy component signifies the self-evaluation dimension of burnout, it denotes feelings of inadequacy, a lack of productivity and accomplishment in the workplace. Accordingly, they concluded that "engagement is also characterised by having high energy (as opposed to exhaustion), efficacy (as opposed to lack of efficacy), and involvement (as opposed to cynicism).

The three-dimensional approach is significant because it integrates the individual's strain experience within the social context of the workplace (Maslach & Leiter 2016). According to Maslach et al. (2001), when individuals feel burnt out, their energy turns to tiredness, their involvement turns to cynicism, and their efficacy turns to ineffectiveness. By indication, engagement in the view of Maslach et al. (2001) is measured by the opposite pattern of scores on the three Maslach's burnout inventory dimensions, which are engagement indicators.

Schaufeli et al. (2002) took a different approach to test the Maslach et al. (2001) computerisation of engagement. They proposed a different conceptualization of engagement and contested the burnout/engagement perspective. Engagement, as defined by Schaufeli et al. (2002), is a productive, rewarding mental state that is characterised by vigour, dedication, and absorption. According to Schaufeli et al. (2002), vigor is described by an individual's mental fortitude and the high quantities of energy they expend when working. Even in challenging circumstances, these people are willing to go above and above for the organisation. Dedication refers to a person's active participation in carrying out tasks while feeling energised, satisfied, proud, and inspired. While, absorption can be characterised as the social state of people's deep involvement when performing a specific task. This leads to intense concentration on carrying out a specific task, swift passage of time, and a lack of desire to leave the workplace. In addition to Schaufeli et al. (2002)'s definition of engagement, they rename the "state of engagement to "work engagement".

Harter et al. (2002)'s conceptualisation of engagement is essential to the literature on engagement. Their expert approach to employee engagement stand out among the most extensively cited in employee engagement. Also, they were the first to analyse the relationship between employee engagement and business unit level, such as satisfaction and organisational outcomes (Shuck & Wollard 2010). According to Harter et al. (2002), engagement should be studied at the business rather than the personal level because engaged employees are emotionally connected and cognitively attentive to the organization's direction.

Furthermore, Harter et al. (2002) defined engagement as the involvement, satisfaction and enthusiasm an individual exhibits toward a work role. This definition is believed to have added to the expectation level of individuals' satisfaction and measuring engagement on the business unit level. This is because the definition altered how engagement had been formerly viewed, and the outcomes may be more convincing to managers in the practitioner context than the academic context (Guest 2014). Although their findings paved the way for numerous other practitioners and researchers, it was later criticised. As a result, their practitioner-orientated approach resulted in little agreement in the conceptualisation of engagement (Schaufeli & Salanova 2014).

Saks (2006) contribution to employee engagement signifies the first academic research to exceptionally conceptualised engagement's antecedents and consequences. According to Saks (2006), engagement is a unique and distinct construct that comprises of emotional, cognitive, and behavioural components connected to personal role performance at work. Saks's conceptualisation of employee engagement was developed from the components of cognitive, emotional and behavioural, which is quite similar to that of Kahn (1990). Furthermore, Saks (2006) provided a bridge linking the previous theories of employee engagement, academic body and the practitioner literature. Saks (2006)'s study was critical to the advancement of knowledge in engagement because it was the first to prove that engagement may be experienced cognitively, behaviorally and emotionally. Also, he theorised employee engagement through a social exchange model and was the first who divide employee engagement into organisation engagement and job engagement.

Macey and Schneider (2008) extended the work of Saks (2006) and stated that employee engagement was developed from trait engagement, state engagement, and behavioural engagement. They argued that the three categories together integrate employee engagement. Trait engagement is described as conscientiousness, autotelic, positive affectivity, and proactive personality. State engagement is an antecedent to behavioural engagement that involves satisfaction, involvement, empowerment, and organisational commitment. While behavioural engagement is the discretionary energy an employee applies to realise organisational purposes such as extra-role behaviour, role expansion and proactivity. Although Macey and Schneider (2008) classified engagement into three categories and proposed their division of the construct into three separate facets, their classification received criticism from Dalal et al. (2008) and Newman et al. (2011). They argue that dividing the engagement concept into three parts renders it obsolete. It also conveys little more than an individual's attitude towards their employees, which has already been appropriately measured.

Alfes et al. (2010)'s definition of employee engagement seems to be the most appropriate when investigating engagement at the organisational level. They defined engagement as the positive presence of employees during work performance by eagerly contributing conscious effort and experiencing positive, meaningful and emotions

connections to other co-workers. This definition tapped into engagement nature as a state by seeing the cognitive component in the procedure of intellectual effort. This implies that individuals need to be psychologically absorbed when carrying out their work, which is a state of mind. Also, Alfes et al. (2010)'s definition stresses the vital link to other employees, which is essential to teamwork and the well-being of employees. In most organisations, individual or organisation performance is achieved through the combined effort of employees in teams or groups in the form of units or departments. Thus, there must be a connection among employees working in the same unit or department, which is essential in achieving an organisation or individual performance.

Furthermore, Shanmugam and Krishnaveni (2012) defined employee engagement as individuals who give extraordinary performance and effort to achieve an organisation's objective. Engaged employees are described by their ability to apply high energy and show enthusiasm while carrying out their day-to-day activities. This is because they strive to reach the extra mile in performance and display positive attitudes that help the organisation to achieve its set goals. Also, Schaufeli (2013) specified that the recent employee engagement definitions are rather narrow; therefore, he required a broader conceptualisation of employee engagement. Thus, Schaufeli stated that employee engagement should consist of behaviour an engaged individual shows while striving to achieve organisational goals and objectives.

Evident from the preceding, the construct (engagement) has been given different names by the individual author's definition of engagement. For instance, it was referred to as "work engagement" by Schaufeli et al. (2002), tagged "Job engagement" by Kahn (1990), "work passion" by Zigarmi et al. (2009) and "employee engagement" by Macey and Schneider (2008). However, this study maintains the construct as "employee engagement" to retain the organisation and self-dimensions of the construct.

Researchers frequently use two definitions of employee engagement. This definition includes Kahn's (1990) 'psychological perspective' and Schaufeli et al. (2002) 'early burnout perspective'. Therefore, this doctoral thesis applied Schaufeli et

al. (2002)'s definition of engagement, as described above. The primary goal for using this definition is because it identifies the relationship between burnout and engagement but affirms that they both are self-determining states of mind. Since this research will concentrate on engagement and burnout is exempted, it is logical that this study adopts this definition. Although Kahn (1990) gave an earlier concept of engagement, the conceptualisation was not adopted for this research. This is because Kahn did not make engagement operational as an entity even though his work gave way to further studies on engagement as a construct. Also, this study employed the measurement scale (Utrecht Work Engagement Scale) developed and used by Schaufeli et al. (2006), who operationalised the scale from their definition. The scale is now often referenced and utilised by several researchers in modern engagement studies (Medina et al. 2023).

## **2.4 OVERVIEW OF OTHER RESEARCH CONSTRUCTS**

### **2.4.1 Trait engagement**

Macey and Schneider (2008) proposed four basic personalities to experience and maintain engagement, namely autotelic personality, proactive personality, positive affectivity personality and conscientiousness personality (namely trait engagement). Trait engagement is designated as employees who tend over time to carry out work in a positive, passionate, and energetic way. This present study focuses on proactive personality, autotelic personality and positive affectivity personality. This is because conscientiousness personality has been established in the Big Five personality traits related to employee engagement (Ansari 2020). Additionally, previous studies on personality and employee outcomes have focused mainly on the Big Five personality and state-like personal resources such as optimum (Contreras et al. 2020). On the contrary, autotelic personality, proactive personality and positive affectivity personality have not been thoroughly studied in relation to employee engagement (Kanten & Arda 2021; Young et al. 2018). Thus, this study will look closely at these personalities' meanings and summarise research findings on their relations to employee engagement.

### 2.4.2 Proactive personality as trait engagement

Proactive personality originates from the integrationist perspective, which is an approach that emphasises participation in activities (Bateman & Crant 1993). It was first introduced as a dispositional construct that identifies variances among individuals and their different actions to influence their work environment (Bateman & Crant 1993). It determines the differences between people's tendency to impact their immediate environment. According to Schneider (1987), people's different behaviour is influenced by their internal and external environment. This implies that the way individuals behave is a product of what happens to them in their physical environment. Thus, individuals who can modify and transform their environments are seen to be more effective in work performances.

Bateman and Crant (1993) approached proactivity personality as a relatively stable behavioural tendency to cause environmental change. This is consistent with the organisational behaviour and psychology field, in which an individual's behavioural and environment continuously interact and impact one another (Bandura 1986). Since then, the volume of research on proactive personality and its influence on work engagement has increased (Grant & Ashford 2008; Lin et al. 2022). According to Bateman and Crant (1993), being proactive includes defining a new problem, finding a new solution, and providing dynamic leadership through an unclear future. That is, to be proactive means to redesigns the past, builds the future, creates new businesses and changes competition's rules. Also, Bateman and Crant (1993) stated that individuals with a proactive personality are known to be relatively unconstrained by situational forces and have a significant effect on changing the environment. They search for change opportunities (i.e., set change-oriented, effective goals; anticipate and prevent problems). Also, they carry out tasks uniquely (i.e., take the necessary action and persist until results are achieved).

Crant (2000) stated that proactive behaviour is a product of dispositional and situational factors. It is a dispositional tendency to take individual creativity across various situations and activities. Individuals with proactive personality recognise and use opportunities to show initiative and continue it until significant changes are attained

(Wang et al. 2021). This is because these individuals are motivated to take personal initiative to impact organisational success, create a positive relationship among employees and also display positive work behaviour and attitudes. While individuals with low proactive personality attributes do not identify opportunities nor use them to bring changes (Lin et al. 2022). That is, they behave only reactively and passively on situational forces; as such, they adjust or accept circumstances than making a difference.

According to Grant and Ashford (2008), proactive behaviour is an individual's anticipatory action to influence himself and his environment. This personality has two distinctive behaviours, which are (1) future-focused (i.e., acting in advance) and (2) intended focus (i.e., to change things in an intended direction or to improve things). Also, Grant and Ashford (2008) stated that there are five dimensions in which proactive behaviour varies in terms of its form, intended target, frequency, timing, and tactics. They explained that the form aspect of proactive behaviour refers to the type or category of actions, such as feedback seeking and social networking. Also, proactive personality could differ concerning the intended target of impact or whom the behaviour will benefit. The aspect of 'frequency' refers to how often proactive behaviour occurs. The 'timing' aspect refers to the degree to which the behaviour occurs at particular occasions, phases, or moments. Finally, the 'tactics' aspect describes how specific methods and strategies are used. These five dimensions provide a way to categorise and adequately describe proactive behaviours (Li 2020).

Ascertaining that individuals' behaviour is internally and externally influenced, Bateman and Crant (1993) established a proactive personality scale to measure proactive personality attribute construct. The scale has been used in several studies to examine the influence of proactive personality on different organisational outcomes. Lin et al. (2022) concluded in their research that proactive personality is a significant antecedent of workplace adjustment, performance and overall employee engagement. Positive correlations were also reported on outcome variables like achievement, career outcomes, individual job performance, leadership, organisational innovation, team performance and entrepreneurship (Lin et al. 2022; Wang & Lei 2021). This indicates that proactive personality is an essential variable in the effectiveness of performance,

individual and organisational achievement, and employee engagement (Sheoran et al. 2023). Therefore, this study will examine how proactive employees relate their personality to achieving desired work outcomes such as employee engagement.

### **2.4.3 Autotelic personality as trait engagement**

The word 'autotelic' originated from two Greek words: auto (self), and telos (goal). The origin of autotelic personality was derived from the flow model. Flow research has given rise to the concept of an autotelic personality, which has been characterised as the proclivity to engage in an activity "for its own sake" or intrinsic motivation (Csikszentmihalyi 1990).

According to Csikszentmihalyi (1997), autotelic personality refers to a self-contained activity; an activity that is done because doing it is the reward in and of itself. That is, it refers to engaging in the action with no expectation of receiving benefits from an external source. Csikszentmihalyi (1997) stated that autotelic personality is a combination of receptive (e.g., openness) and active qualities (e.g. persistence and engagement). The openness to recognise and become absorbed in new challenges is receptive yet not fully affected. It also includes active perseverance and engagement in a highly challenging work environment. Individuals with an autotelic personality are incredibly motivated and often known to be well-adjusted. This is because autotelic individuals strive to achieve excellence in all aspects of their life, such as socially, academically and professionally. As such, they are highly productive people that contribute significantly to societal welfare. Also, Kanten and Arda (2021) explained that these individuals also assist in producing positive outcomes for their organisation and society. Thus, they perform their duties effectively and precisely and strive to make their organisation conducive for themselves and their fellow workers.

Furthermore, Csikszentmihalyi and Rathunde (1993) state that the characteristic of an autotelic personality is competence in dealing with an intricate balance between the play of challenge finding and the work of skill-building. They open their attention to new information (i.e. the play of challenge finding) and develop skills to solve the difficulties identified (i.e. the work of skill-building). Challenge finding and skill-building are reinforced by different, sometimes even opposing processes or traits,

which are present in autotelic personalities. This includes openness to innovation and small concentration; pure curiosity and the need for achievement; integration and differentiation; independence and cooperation; satisfaction and persistence (Nakamura & Csikszentmihalyi 2002; Tse et al. 2021). For instance, the fun and pleasure related to the autotelic personality may be highly desirable. Nevertheless, autotelic activities also need absorption and readiness to learn about the restrictions of one's skill.

According to Baumann (2012), possessing an autotelic personality is a desirable characteristic because those who exhibit an autotelic personality regularly engage in complex activities. This, in turn, is likely to improve them to feel better about themselves and upsurge their self-esteem. They can effectively take opportunities, even potential threats, and change them into pleasurable challenges. These individuals are frequently ready to be engaged, and not bored with activities. Their level of anxiety is low, and they are consciously aware of their environments and regularly ready to get involved in the experience of flow. They engrossed in various activities in which they participated and became deeply committed. They merge their action and awareness, which sometimes lead to a loss of reflective self-consciousness (i.e. loss of consciousness of oneself as a social actor). These people can discover enjoyment in almost any situation or circumstance that may emerge since they have control over their minds and experiences (Csikszentmihalyi 1990).

Furthermore, Tse et al. (2021) stated that individuals who possess an autotelic personality are mindful and quickly become engaged in conscious activities. This, in turn, will allow them to be more open-minded to balance challenges and their skills. Autotelic personality has also been ascertained to be related to subjective well-being such as life satisfaction, especially in the aspect of emotional well-being (Wu et al. 2021). Hence, there is a high likelihood that they possess a more meaningful sense of well-being than those individuals who do not have an autotelic personality. Kantan and Arda (2021) opined that having confidence and intrinsic motivation have also been linked to autotelic personality. As such, individuals with an autotelic personality are internally motivated to establish and attain set goals and often are observed to have high confidence.

Although studies have been carried out to unravel autotelic personality and the characteristics surrounding autotelic personality, there are still limited studies on the relationship between autotelic personality and work outcomes such as employee engagement (Kanten & Arda 2021; Prokesova et al. 2019). One major crucial question is how organisations could best capitalise on, and further facilitate, autotelic personality at work. This question has led researchers to explore why and how autotelic individual play a role in organisational and possible mechanisms that may explain the relationship between autotelic personality and work outcome. Thus, the result of this research will open room for further studies on autotelic personality in relations to employee engagement.

#### **2.4.4 Positive affectivity as trait engagement**

Positive affectivity personality refers to an individual's mood, emotional states, and the proclivity to perceive events, situations, and circumstances favourably (Fortunato & Goldblatt 2002). Also, Positive affectivity personality is described as a proclivity for good feelings, enthusiasm, a higher level of well-being, and a higher level of energy for activities (Agho et al. 1992). According to Agho et al. (1992), positive affectivity personality is an organisational behaviour and a managerial instrument used to build a positive working environment for individuals to be happy across time and situations.

Positive affectivity personality can help people reach their full potential by helping them handle emotional information accurately and efficiently, solve problems, make plans, and achieve their goals (Fredrickson & Losada 2005; Shen et al. 2022). That is, it influences information-processing plans, creative thinking and increases intellectual potential. Individuals with a high positive affectivity personality are confident, typically enthusiastic, active, energetic and alert (Fredrickson & Losada 2005; Hong et al. 2021). Conversely, those individuals with low levels of positive affectivity personality are described by sadness, distress, lethargy, and unpleasurable engagement.

Lin et al. (2022) explained that since positive affectivity personality is connected to employee experiences, employees with a high positive affectivity personality are expected to feel substantial organisational support. Their confidence and

optimism enable them to discuss their opinions constructively with their superiors so that organisational issues are settled and their positive feelings are established. Positive affectivity personality permits innovative critical thinking to thrive in an organisation where employees are not afraid to approach supervisors. Also, when employees believe they are active by suggesting solutions to issues in the organisation, positive affectivity personality will be maximised, while negative affectivity (i.e., anger, fear, hostility, sadness, and stress) will be minimise (Fukuzaki & Iwata 2023). According to Fukuzaki and Iwata (2023) positive affectivity personality may influence employee and supervisor relationships in an organisation. This is because it increases attention focus that improves personal resources to help overcome distressing situations. Such resources include social (e.g., social support networks), physical (e.g., better health), and intellectual and psychological resources (e.g., resilience, optimism and creativity).

Also, Macey and Schneider (2008) stated that individuals who are high in positive affectivity personality tend to interact freely with their work environment. This is because they help to accurately and efficiently process emotional information, resolve problems, to create plans, and gain organisation goals. This will, in turn, enhance their tendency to participate and contribute towards achieving positive organisational outcomes such as employee engagement. Although empirical studies on the relationship between positive affectivity personality and employee engagement are limited, these variables are expected to correlate (Fukuzaki & Iwata 2023; Prokesova et al. 2019). As such, this study will examine the relationship between these variables and introduce social support as a mediating variable linking positive affectivity personality to employee engagement.

#### **2.4.5 Social support**

According to Job Demands-Resources Model (JD-R), social support is a job resource that can favourably stimulate employee engagement and help regulate work demands (Bakker & Demerouti 2014; Bakker & de Vries 2021). Furthermore, social support is defined as aid provided by others that has the potential to improve physical well-being and health (Cohen & Syme 1985). According to Caplan et al. (1975), social support is described as attachments between people, which offer guidance, encourage mastery of

emotions, provide feedback, validate identity, and nurture competence. Also, it is defined as the information leading an individual to believe that they are cared for, loved, valued and belong to a network of communication and mutual obligation (Cobb 1976).

Sigursteinsdottir and Karlsdottir (2022) stated that social support at the workplace can be derived from co-workers or superiors and can work either through emotional, instrumental or informational means. Emotional support deals with empathy shown by the supervisor and co-workers to help an individual to release emotions; instrumental social support deals with assistance from supervisor or co-workers, which helps an individual to reduce the workload; while informational social support deals with advice or guidance given by supervisor and co-workers (Jolly et al. 2021; Rodriguez & Cohen 1998). Individuals with more social companionship have more access to esteem support and effective assistance (Cohen & Wills 1985; Sigursteinsdottir & Karlsdottir 2022). Some researchers have defined social support as the fulfilment of an individual's core human and social needs for esteem, approbation, affection, sense of belonging, identity and security through cooperation and connection with others (Kiema-Junes et al. 2020; Thoits 1982). However, others have suggested that the benefits of social support arise because it acts as a buffer against stress. As such, they conceptualised it as social interactions that are perceived by the recipient to facilitate coping and assist in responding to stress (Beehr & McGrath 1992; Li et al. 2021).

Jolly et al. (2021) stated that social support is significant in the workplace today because flatter organisational structures and increased in team-based work that requires more frequent and meaningful lateral interaction. According to Galinsky and Ku (2004), lateral interactions compel employees to improve interpersonal relations and communications as well as support each other for information and resources to accomplish rising job demands. Support provided by work colleagues and supervisors will generate a sense of meaningfulness, such as security, general motivation, resilience (Ryan & Deci 2001), and socialisation (Bejerholm & Eklund 2006). When employees socialise and support each other, this will help in sharing both positive and negative setback views which, in turn, help employees to learn and gain from each other. As such, employees will be protected from the pathological effect of a stressful experience.

According to Zhenjing et al. (2022), employees who work in an understanding and resourceful work environment are more likely to be productive in achieving the organization's purpose. This is because supportive connections with coworkers make the workplace more pleasant and fulfilling. As a result, the more open individuals can be in building trust and sharing essential information with their coworkers, the organization will lead to positive organizational outcomes. Also, Giao et al. (2020) stated that social support is a vital antecedent of job stress, job involvement, job satisfaction and organizational commitment. Positive outcomes, such as less absenteeism, high job involvement, better physical and psychological well-being and employee engagement, were also reported (Li et al. 2021; Liu et al. 2021). Social support can also be examined as a mediator between two variables (Wang et al. 2021). Therefore, this study aimed to find the impact of social support as a mediator between autotelic personality, positive affectivity personality, proactive personality, and resilience on employee engagement.

#### **2.4.6 Employee resilience**

The term resilience originated in the disciplines of mathematics and science; It is the process of bouncing back and metal bending when stressed without breaking down (Lazarus 1993). Resilience has been described as a significant contributor to human survival in the history of behavioural sciences (Garmezy & Masten 1986; Masten & Obradovic 2006). Resilience is the ability of individuals to possess a committed acceptance of reality, a profound belief, often supported by strong values and creative skill to improvise (Coutu 2002). It has been stated that resilient individuals are determined and can flourish through obstacles, setbacks and difficulties (Fredrickson et al. 2003). This is because they have the tender to rejuvenate or spring back from failure, hardship or even professed irresistible positive changes such as increased in obligation.

Given the significance of resilience for the effective running of organisations, teams and individuals, there has been an increased interest in understanding the concept in the management context (Britt et al. 2016; Wut et al. 2022). Resilience as a construct is categorised into organisational resilience, employee resilience, trait resilience,

emotional resilience, psychological resilience, ego resilience, and career resilience in individual and organisational contexts (Wut et al. 2022). This study focuses on employee resilience construct and its effect on employee engagement. This is because the relationship between these two variables has not been adequately studied. Many studies around resilience have focused on other resilience facets other than employee resilience (Chikobvu & Harunavamwe 2022; Gröschke et al. 2022; Ojo et al. 2021). The rising performance potentials of the current business environment need more than average performance to attain organisational goals. As such, organisations require resilient employees who can succeed in uncertain and dynamic situations (Gröschke et al. 2022).

The concept of employee resilience was introduced to focus on the empirical investigation of employee resilience in an organisational context to work-specific resilient behaviours context (Näswall et al. 2015). It has been operationalised as a dispositional variable controlling psychological mechanisms that enable employees to recover from difficult conditions, adversities and traumatic events (Kuntz et al. 2017; Prayag 2018). In other words, it represents employees' ability to respond appropriately and suffer fewer negative repercussions when under pressure at work. Employee resilience is a protective feature in employees' reactions to change and alteration in the workplace, which helps them survive and recover from adversity or setbacks that are all too often (Wang & Wang 2023).

Recent research on employee resilience has shifted their perspective from a dispositional to a scholar's ability approach. Liang and Cao (2021) stated that employee resilience is a more useful construct in organisational research when viewed as an individual ability that can developed. That is, through interactions between employees and their work environment, they can be encouraged to cope with challenges faced at work quickly. Despite this, employee resilience lacks clarity and conciseness; both the conceptualise and the methodological designs lack theoretical developments (Hartmann et al. 2020; Näswall et al. 2019). The existing measures of employee resilience do not have a substantial theoretical construct and fail to ascertain the dynamic competency of the construct (Näswall et al. 2019). Human resource management and practitioners disagree with assertions about resilience as an ability

that can be developed and built proactively among employees through organisational enablers (Näswall et al. 2015; Robertson et al. 2015). This has caused inconsistencies in the definition of employee resilience (Hartmann et al. 2020; Zhu et al. 2019). Also, most prior studies have focused on the outcomes of employee resilience and fail to consider the antecedent variables that lead to it (Cooper et al. 2019; Lee & Kim 2020).

One notable exception in Näswall et al. (2015), defined employee resilience; is that resilience is employees ability, which is supported by the organisations to use resources for continuous growth and adaptation to work's challenging situations. They explained that employee resilience could be encouraged and influenced by the organisation through the use of three organisational enablers. This includes; leadership (i.e. supportive supervision), learning-oriented culture and a supportive work environment (i.e. supportive team and organisation). In times of change in the organisation, a leadership style which always provides employees with regular feedback and support will assist employees in managing and coping with changes in their workplace. This, in turn, increases employees' ability to adapt and be motivated to support organisational change.

Secondly, an organisation which has a 'learning culture' whereby the management encourages creative thinking, information sharing among workers and a 'trial and error' approach to new challenges; this, in turn, will enhance employee adaptability to change (Marsick & Watkins 2003). Thirdly, organisations can impact employee resilience by encouraging a supportive workplace, which includes positive social support. When employees can openly share negative and positive views, errors, and setbacks with their colleagues, managers and supervisors, they will probably learn and gain from experiences; this will, in turn, reinforce employees' capacity to react successfully to challenges (Näswall et al. 2015). This definition was supported by Kuntz et al. (2016). They refer to employee resilience as the capacity of employees, which is facilitated and assisted by the organisation, to utilise resources effectively, to survive positively, adapt and grow well in response to changing work circumstances.

Näswall et al. (2015) and Kuntz et al. (2016) approach to employee resilience are centred on three principal assumptions. Firstly, employee resilience is influenced

by, but distinct from, dispositional factors promoting individual resilience. Secondly, employee resilience is a behavioural construct incorporating three critical underlying components: "adaptability, learning, and networking". Finally, resilient behaviours can be developed and maintained if appropriate organisational structures, such as a supportive work environment are in place.

This present study adopt the conceptualisation of Näswall et al. (2015) in measuring and conceptualising employee resilience. This is because they viewed employee resilience as behaviour that can be encouraged and developed rather than a stable trait. Also, their study reflects a behavioural and workplace-specific approach to employee resilience, which includes a set of learning-culture and relationship-building workplace behaviours that are supported by the organisation to improve organisational functioning. This, in turn, leads to positive organisational outcomes such as organisational commitment (Luthans et al. 2007; Shin et al. 2012), employee wellbeing (Hanu & Khumalo 2023), job performance (Cooper et al. 2019), and employee engagement (Lee & Kim 2020; Ojo et al. 2021). Regarding the latter, a recent research study proposes that social support signifies a vital enabler of resilience development in organisations and will, therefore, be considered a central variable in this study.

Numerous studies have reached an agreement on the roles and the significant impact of employee resilience on the organisation's ability to engage in transformative developments. Also, to withstand significant adversities and to grow under uncertain circumstances (Hanu & Khumalo 2023; Wang & Wang 2023). This emphasises the significance of considering employee resilience in work-related settings and viewing it as an ability that can be established over time and as a function of exchanges between individuals and organisations (Hartmann et al. 2020; Robertson et al. 2015).

Studies have shown that resilience is required for survival in an unpredictable and challenging workplace (Hartmann et al. 2020; Zhu et al. 2019). Resilience among workforces is critical for efficient running in the 'turbulent world (Blasdel 2015; Wang & Wang 2023). It has become necessary for workplaces to inspire specific methods for encouraging employee resilience and work engagement (Cooke et al. 2016; Ojo et al. 2021). According to Hartmann et al. (2020) resilient employees are more prompt to

recover from challenges at work and responsive to fundamental organisational changes than those who are not resilient. Also, Yi et al. (2020) indicated that people with a low level of resilience are less flexible and emotionally unstable when faced with adversity. As a result, Kuntz et al. (2017) concluded that the importance of resilience cannot be overstated because it is required for the long-term viability of organisations.

## **2.5 RELATIONSHIP OF EMPLOYEE ENGAGEMENT WITH OTHER CONSTRUCTS**

Employee engagement relationship with other well-established related organisational behaviour constructs such as job satisfaction, job involvement, organisational citizenship, organisational commitment, and burnout has been argued in many engagements academic literature (Christian et al. 2011; Maslach 2011). However, according to Saks (2019), the definitions and measures of employee engagement often replicate other constructs such as job satisfaction, job involvement, organisational citizenship behaviour and organisational commitment. Likewise, Kossyva et al. (2023) and Hallberg and Schaufeli (2006) state that the interchangeable utilisation of other constructs, such as organisational commitment and job involvement with employee engagement, had confused the employee engagement construct. Similarly, organisational citizenship behaviour, organisational commitment, job satisfaction and job involvement were utilised parallel to employee engagement equally or partially (Hngoi et al. 2023; Saks 2019).

### **2.5.1 Employee engagement and job involvement**

Job involvement is the degree to which employees' performance at work influences their self-esteem (Lodahl & Kejnar 1965). This is because individuals who are extremely concerned by their jobs and influenced by the work environment get involved more with work. Lawler and Hall (1970) approached the definition of job involvement's construct differently by defining job involvement as the psychological identification with one's work to one's life. That is, employees' jobs influence the psychological aspect of one's life. Applying Kanungo (1982) motivational approach, job involvement is a cognitive condition of individuals' psychological identification with a given job. However, Kundi et al. (2020) stated that job involvement tends to rely on the

importance of needs and the possibility of the job satisfy the employee's psychological needs.

Several studies have defined employee engagement in connection with job involvement. Paullay et al. (1994) described involvement as a degree by which an individual is engrossed cognitively and engaged in their assigned job. May et al. (2004) defined job involvement as individual cognitive perception about how the jobs meet their need and satisfy their purpose of joining the organisation. They further stated that engagement includes the employee's emotions and energy, whereas involvement is the outcome of the employees' perception of satisfying work capabilities. Involved individuals are satisfied and committed to their jobs and organisations and engage closely with co-workers. According to Prasetyo et al. (2021), although job involvement is related to the facets of engagement, it does not equal engagement. They stated that employee engagement is a broader scope where engaged employees use adequate effort on work and organisational objectives, whereas, in job involvement, employees use adequate effort only on work.

Also, Maslach (2011) stated that job involvement is one component or facet of employee engagement and that engagement can also be described by involvement, efficacy, and energy components. They established employee engagement as conceptually different to job involvement since engagement is a broader construct encircling efficacy and energy. Saks (2022) stated that engagement deals with employing oneself to a job cognitively, emotionally and behaviorally, while job involvement deals with only cognitive. Job involvement is a cognitive perception of the job itself, which is attached to the self-image view, while engagement is related to individuals' passion, enthusiasm and energy toward their job (Saks 2019). This means job involvement is an employee's perception, while engagement is an employee's psychological state. An assessment of job involvement and employee engagement clarified that job involvement is concentrated on cognition (Kanungo 1982), whereas employee engagement is focused on cognition, emotion, and behaviour (Kahn 1990; Shuck & Wollard 2010).

### 2.5.2 Employee engagement and job satisfaction

Several researchers in the review of engagement literature have theorised employee engagement in connection to the job satisfaction construct. For example, Harter et al. (2002) introduced the concept of “satisfaction-engagement” to show the direct link between satisfaction and engagement. They proposed that engagement and satisfaction have similar conceptual and empirical boundaries. Furthermore, Harter et al. (2002) define engagement as the individual’s satisfaction, involvement, and enthusiasm for work. This is because engagement contains items usually conceptualised as satisfaction facets, such as opportunities for development, clarity of expectations and resource availability. Saks (2022) cross-sectional study stated that job satisfaction is a definite outcome of organisation and job engagement. Satisfaction is the emotional factor connected to pleasure, a sense of affirmation and motivation employees receive from their work and organisation.

Contrarily, studies have argued that there is a fundamental distinction between employee engagement and job satisfaction. According to Montuori et al. (2022), satisfaction is an individual perception of job condition and characteristic of attitude, while employee engagement refers to the individual experience that occurs from carrying out a given task. Also, Macey and Schneider (2008) stated that engagement goes beyond the fundamental meaning of satisfaction of just the positive or negative emotion an individual gets about job conditions or characteristics. They stated that engagement is more of passion, enthusiasm and commitment an employee invests in the discretionary effort to contribute to the organisation’s objectives. Also, Yang and Ling (2023) stated that employee engagement exceeds intrinsic motivation, job involvement and job satisfaction. This is because employee engagement describes a broader gathering of behaviours that include the accomplishment of day-to-day activities at the organisation level. Engaged employees have high stimulation and motivation toward their work, which drives them to accomplish a task (Noercahyo et al. 2021).

### 2.5.3 Organisational commitment and employee engagement

Organisational commitment has received wide attention in the last decade. Various studies have been dedicated to defining the construct and studying its antecedents and outcomes. Even though there are multiple types and dimensions of organisational commitment, there are three generally agreed components: continuance, affective and normative (Mowday et al. 1979; Porter et al. 1974).

According to Allen and Meyer (1990), organisational commitment is a psychological condition with three components: continuance, affective and normative. These three components bind employees together by influencing their decisions of whether to remain with their present organisation and put effort into realising the organisational goals. Allen and Meyer (1990) state that affective commitment is an individual's positive emotional attachment and identification with or involvement with a particular organisation. When employees with strong affective commitment identify themselves with the organisational goals and values, they will display a strong willingness to maintain their stay with the organisation because they "want to". Normative commitment is an individual's perception that they "have to" stay with a particular organisation due to personal devotion or loyalty. While continuance commitment is defined as individuals' personal needs to remain in an organisation because of the possible costs of leaving the organisation. Employees with continuance commitment remain with an organisation to avoid the perceived cost attached to leaving an organisation, especially after a significant investment in the organisation (Rameshkumar 2020). Similarly, Herrera and De Las Heras-Rosas (2021) stated that when committed employees have built a psychological relationship between themselves and the organisation, they are less likely to leave the organisation.

Several studies have viewed organisational commitment and employee engagement as two distinct constructs. For example, Rameshkumar (2020) stated that organisational commitment refers to an individual's dedication to the organisation, whereas employee engagement is an individual's absorption of the work itself. This mainly signifies that commitment is primarily organisation-focused, whereas engagement is more work-focused. Also, Saks (2019) argues that engagement and

organisational commitment differ. That is, engagement is not just an individual's attitude but a degree to which an individual focuses, dedicates and absorbs performing role tasks, while organisation commitment relates to an individual's attitude, faithfulness, and devotion to their organisation.

Furthermore, Rameshkumar (2020) stated that engagement is distinctive from commitment because it refers to an employee's psychological connection in accomplishing their work instead of their attitude toward job conditions. Also, Kossyva et al. (2023) stated that engagement is not restricted to employee emotional attachment to the organisation, while commitment is all above employee emotional state of attachment to the organisation. Macey and Schneider (2008) suggested that organisational commitment may be part of engagement but not sufficient for engagement concept. Commitment is one essential facet of engagement but not sufficient for engagement itself. From the above literature review, only little of researchers have suggested that organisational commitment is related and could be distinguished from employee engagement as an antecedent (Saks 2022).

## **2.6 EMPLOYEE ENGAGEMENT IN NIGERIA ECONOMY**

According to Miftahu (2021), Nigeria is a highly populated country with the highest unemployment rates in the world (National Bureau of Statistics 2020). The few employed individuals suffer job insecurity because of the continuous job loss caused by poor economic indicators. For instance, it was estimated that over 3.7 million employees lost their jobs when the country's economy went into recession in the year 2016– 2010 (National Bureau of Statistics 2011). As such, there is a high increase in demand for the government to provide job opportunities for her citizen. This has made employee engagement on the low side of the country. According to George et al. (2023), the massive decline in employee engagement in Nigerian public sectors can be accredited to the high rate of corruption, unpatriotic behaviour of political office holders, and advancement in knowledge and technology.

Igbaekemen and Odivwri (2014) emphasised that over the years, employees in the Nigerian economy have been clamouring for enhancements in private and public service, minimum wage, salary structures, training and development. Also, Nigeria's

economy is demanding solutions to unemployment, widespread poverty, a high rate of corruption, failing infrastructure, and the high cost of public services. However, despite the pressure and publicity on the unemployment menace, the government have turned a deaf ear to these pleas, and this has led to widespread disengagement among employees in Nigeria (Oshiokpekhai et al. 2022). Also, Ajulo (2023) lamented that these issues as regards employee engagement are very much apparent in the Nigerian economy due to leadership and accountability issues. Peter (2016) affirmed that in developing countries, political corruption, amongst other factors, had aided the declining level of employee engagement and productivity decrease in public service.

According to Egwuonwu (2016), employees constantly ask questions like, how can one be meaningfully engaged when they have not been paid or rewarded for months? How can one be engaged when the organisation/government do not care about their welfare? How can one be productive when there is such terrible mismanagement of funds? These questions have become primary indicators that cause disengagement in Nigeria's economy. Although there are numerous government intervention programmes in Nigeria, the dropping rate of employee engagement, employee performance, the bureaucratic structure, and the behavioural attitude of civil or public officials are alarming (Bakare-Aremu et al. 2021; Ogunnubi & Isike 2015). This attitude has impacted Nigeria's economy, contributing to poor individual performance and disengagement among Nigerian employees today (Ajulo 2023). According to Ogueyungbo et al. (2020) an organisation cannot perform to its fullest or be productive when its workforce is not engaged. Thus, he suggested that other constructs that might affect employee engagement in the county should be considered.

### **2.6.1 Nigerian health care facility**

The healthcare sector integrates companies within the economy that specialise in providing goods and services to treat patients with preventive, curative, rehabilitative, and palliative care (Adeloye et al. 2017). The healthcare sector creates and commercialises goods and services for maintaining health and providing adequate medical care. According to Nwosu et al. (2020), providing quality and effective healthcare services is one of the functions of government in every country of the world.

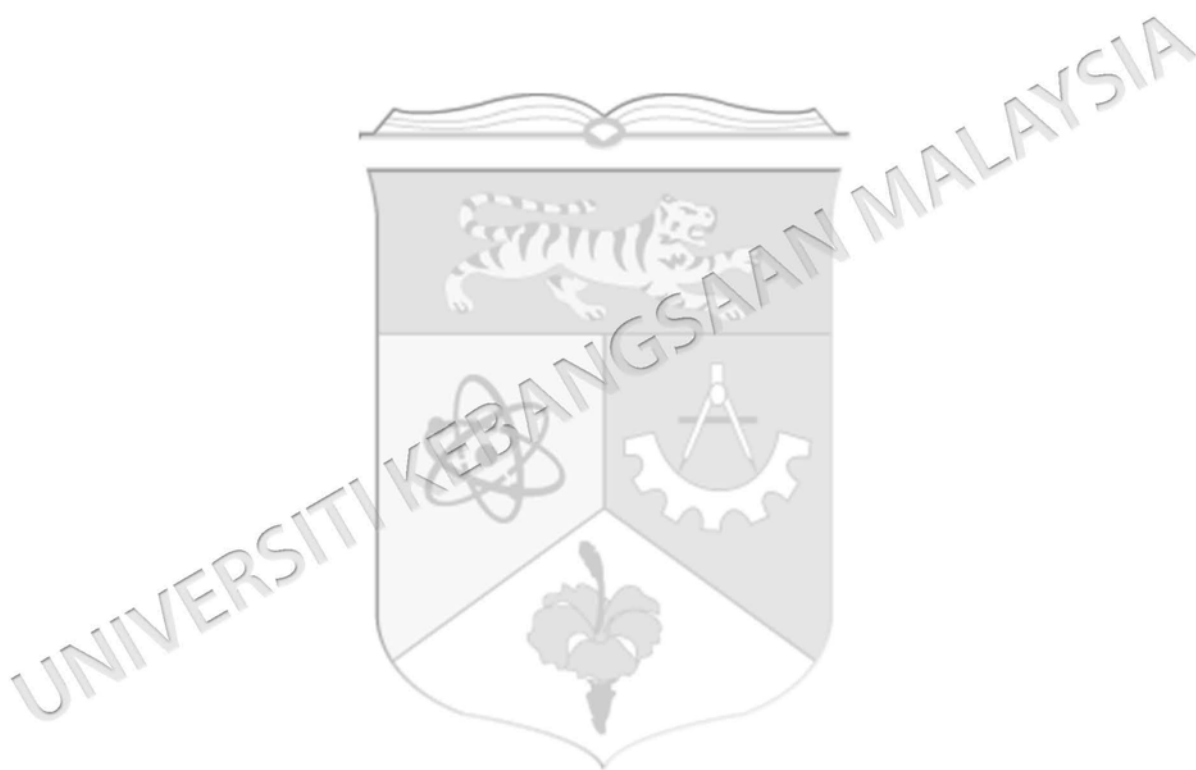
In both developed and developing countries, a significant amount of the nation's wealth is dedicated to improvements in health. For example, it was stated that the Nigeria government's expenditure on health as a percentage of the nation's Gross Domestic Product (GDP) is 3.65% (World Health 2016). This shows that Nigerian government health care expenditures are significant in absolute terms and relative to the GDP.

Despite the healthcare sector's contribution to Nigeria's economy, Nigerian healthcare continues to be on a downward trend. Public hospitals operate below standards regarding the availability of health centres, human coordination resources, necessary infrastructure, medical equipment and supplies of medications, especially in rural areas (Adeloye et al. 2017). This, in turn, has affected easy access to quality health services by the citizens, leading to a low level of utilization of public health services by the citizen. Also, the tenacious underperformance of the public health system has seriously affected poor Nigerians' wellness, health and lifecycle.

Furthermore, due to the challenges facing the public health care system, Nigerian-trained nurses continue to migrate to developed countries to seek better opportunities (Okafor & Chimereze 2020). Current statistics show that 1 in 20 nurses trained in Africa, especially Nigeria, work in developed countries. The shortage of qualified and competent health personnel significantly impacts the quality of healthcare care provided to patients and the development of effective health services. This is because nurse engagement is regarded as an essential element of delivering high-quality services, as nurses have the highest level of direct patient care as likened to others within the hospital environment (Kwame & Petrucka 2021). Nurses migrating to developed countries often weaken the health system, thus deteriorating the working conditions. This deteriorating working condition often contributes to high absenteeism, poor quality care and low engagement.

Also, the available qualified registered nurses in the country are often faced with compelling circumstances and are overstretched to perform duties beyond their licensure to respond to population health needs. As a result, nurses are faced with high pressure to get the work done, thereby hindering their engagement level. As such, the patients are provided with less competent quality care. According to Okafor and

Chimereze (2020), if quality health care must be provided, there must be a more profound commitment on the part of the government to look critically at the problems of the physical, social and mental well-being of the health personnel and the working condition of the health sectors.



## **CHAPTER III**

### **HYPOTHESIS DEVELOPMENT**

#### **3.1 INTRODUCTION**

This chapter focuses on hypotheses development regarding the effect of the independent variables on the dependent variable and the function of social support in mediating the effects of employee personality and resilience on employee engagement. At the end of this chapter, a conceptual framework is presented.

#### **3.2 AUTOTELIC PERSONALITY AND EMPLOYEE ENGAGEMENT**

According to the Conservation of Resources (COR) Theory (Hobfoll 1989), personal resources such as individual personality are an essential predisposition of employees to deal with their resources and be able to adapt to job demands effectively, which, in turn, generate positive work outcomes. Furthermore, Hobfoll contended that personality is a positive self-evaluation that signifies employees' sense of ability to viably be in charge of their workplace and manage their individual lives. Autotelic personality predisposes individuals to a different job and shapes employees' nature affecting their capacity to personally be engaged or disengaged at work (Kanten & Arda 2021; Macey & Schneider 2008). In other words, the higher the autotelic personality an employee possesses, the more equipped he or she will become to enjoy challenging activities and accomplish challenging goals.

Autotelic individuals are perceived to be confident in setting and achieving potential goals; as such, they are more likely to be engaged and inclined to experience work positively, actively and energetically (Callea et al. 2022; Macey & Schneider 2008). Also, they enjoy challenging activities and become so involved in what they do

that they stop being aware of themselves and focus just on the main job (Akbari et al. 2023; Mills & Fullagar 2008). This is because; they are consistent in goal actualisation and cooperate with others regardless of unfavourable conditions, hence, become highly engaged (Akbari et al. 2023).

According to Young and Steelman (2017), individuals with an autotelic personality are crucial in an organisation due to their involvement and engagement in meaningful activeness in the workplace. They engage in activities for the actual task and not the rewards, as their personality derives satisfaction from the task rather than the rewards attached to such a task (Callea et al. 2022). Also, Hirschfeld and Thomas (2008) stated that autotelic individuals are more likely to participate in behaviours and activities that lead to employee engagement, such as setting personal challenging goals, taking up challenging tasks, and seeking developmental feedback. These behaviours make the employees adjust to demands and resources in their work with their own needs and abilities, resulting in higher employee engagement over time (Callea et al. 2022; Prieto-Díeza et al. 2022).

Recently, Kantén and Arda (2021) stated that an individual who possesses a higher autotelic personality is expected to be more engaged than a non-autotelic individual. This is because the autotelic employee will identify challenges and develop skills to solve the identified challenges (Mills & Fullagar 2008). This, in turn, will lead to positive outcomes such as employee engagement (Kantén & Arda 2021; Young & Steelman 2017). This finding is consistent with the view that individual trait engagement, such as autotelic personality, may predispose individuals to be more engaged in their work (Kahn 1990; Macey & Schneider 2008). Therefore, building on the above perspectives, this study proposes that autotelic personality will produce positive outcomes such as employee engagement.

*H1: Autotelic personality is positively related to employee engagement*

### 3.3 RELATIONSHIP BETWEEN AUTOTELIC PERSONALITY AND SOCIAL SUPPORT

Although studies have not paid attention to the relationship between autotelic personality and social support, it seems reasonable to surmise that this trait is related to social support. This is because it influences the quality of one's social interactions (Callea et al. 2022; Kee & Wang 2008). Following the COR theory, social support is commonly cited as a job resource because it fosters learning and sharing new ideas and information, thereby increasing job competence and trust in the organisation (Hobfoll 1989). The characteristics of autotelic personality include information-seeking behaviour, broad-mindedness, openness to novelty and imaginativeness (Callea et al. 2022; Csikszentmihalyi 1990). These characteristics empower autotelic individuals to be more prone to engage in new challenges and have an open discussion concerning work-related tasks with their supervisor and co-workers to contribute to the organisational goals (Akbari et al. 2023; Hirschfeld & Thomas 2008). Also, autotelic individuals are inclined to have a strong work ethic and attitude and keep their promises. As a result, social support from their organisation gives the sense that they can handle challenges and commit to their promises (Csikszentmihalyi 1990; Jolly et al. 2021).

Furthermore, autotelic individuals enjoy challenging activities, generating new ideas, and setting goals (Akbari et al. 2023; Nakamura & Csikszentmihalyi 2002). As a result, necessary feedback and guidance from their supervisor will make them generate more ideas (Liu et al. 2023). Moreover, autotelic individuals have several basic needs, such as being curious, need to achieve and openness to novelty (Csikszentmihalyi 1997; Tse et al. 2021). As such, social support is intrinsically motivating and tied to fulfilling these basic needs, leading to favorable attitudes toward the organisation (Bakker & de Vries 2021; Bakker & Demerouti 2008). Therefore, how supportive one's organisation could be regarding trust, sharing vital information and providing the necessary support could help attain the self and the organisation's goals (Abuhamdeh 2020; Tse et al. 2021). In line with this, this study proposes the following hypothesis:

*H2: Autotelic personality is positively related to social support*

### **3.4 THE MEDIATING ROLE OF SOCIAL SUPPORT ON THE RELATIONSHIP BETWEEN AUTOTELIC PERSONALITY AND EMPLOYEE ENGAGEMENT**

As discussed above, studies have shown that autotelic personality is positively related to employee engagement (Kanten & Arda 2021; Mills & Fullagar 2008) and social support (Tse et al. 2021). However, research on social support as a mediator between autotelic personality and employee engagement is limited. Following the COR Theory (Hobfoll 1989), social support is a motivational partway that relates to personal resources, such as individual personality to predict employee engagement. According to the COR Theory, individual personality acts as a crucial resource that assists the employee in setting goals and managing work lives, and the availability of social support will help in achieving these desired goals and also support the achievement of work outcomes. Furthermore, Hobfoll et al. (2018) specified that resources do not exist in isolation, but rather resources help to produce other resources. For example, the employee will exhibit a positive attitude and behaviour (personal resources) when they perceive support from a supervisor (a workplace resource), and together, these resources work toward a positive work outcome (Bakker & de Vries 2021; Contreras et al. 2020). Job resources (e.g., social support) and personal resources are related to employees' abilities to do their jobs adequately, and individuals who sense the availability of support at work are likely to impact workability and express engagement (Albrecht & Marty 2020; Saks 2022).

According to Macey and Schneider (2008), certain individuals who thrive and face potential threats will perceive support as a general predisposition to influence and foster engagement at work. Therefore, this study contends that social support mediates between autotelic personality and employee engagement. This is based on the assertion that the certainty for some individuals (e.g., autotelic individuals) to be engaged at work depends on the degree to which the organisation meets their needs and encourages their desire to bring their whole selves (e.g., their personality, strength, ideas and passions) to the workplace (Callea et al. 2022; Kahn 1990). As such, employees will become fully engaged with various tasks toward achieving organisational goals (Macey & Schneider 2008).

Also, Nakamurahaa and Csikszentmihalyi (2002) stated that autotelic individuals do not always expect external rewards or motivation to be engaged in activities, yet they will continually need an organisation that is supportive by giving them feedback information. This, in turn, will help them to mould confidence (Abuhamdeh 2020; Nakamura & Csikszentmihalyi 2002). Also, this feedback information will help autotelic individuals generate new ideas, hunt for ways to solve problems, improve things, and be more efficient toward positive work outcomes such as engagement (Akbari et al. 2023; Young & Steelman 2017). Furthermore, autotelic employees will be motivated, comfortable and equipped to take risks, try out different ways of doing things, and turn a work threat into enjoyable challenges when they have the necessary social support, which will further lead to engagement (Kanten & Arda 2021; Macey & Schneider 2008). Similarly, Kanten and Arda (2021) stated that an autotelic employee sees social support, such as a supportive work environment, as a resource that supports their natural tendencies to take control of their work environment. Also, social support will enable an autotelic individual to thrive in the face of potential threats, such as increased job responsibilities, setting clear goals and seeking feedback, which can lead to a positive outcome, such as engagement (Abuhamdeh 2020). Therefore, drawing on COR Theory (Hobfoll 1989), autotelic personality through social support will strive to achieve a positive work outcome, such as employee engagement (Hobfoll et al. 2003). Therefore, in line with the theoretical and empirical arguments above, this study proposes the following hypothesis:

*H3: Social support will mediate the relationship between autotelic personality and employee engagement*

### **3.5 POSITIVE AFFECTIVITY AND EMPLOYEE ENGAGEMENT**

Although there have been few studies on the relationship between positive affectivity and employee engagement, according to COR Theory (Hobfoll 1989), personal resources such as personality are identified as the individuals' sense of their ability to control and successfully manage their environment toward positive outcome such as employee engagement (Albrecht & Marty 2020; Demirović et al. 2022). In line with this, Macey and Schneider (2008) stated that positive affectivity predisposes

individuals to different behaviours and attitudes toward their jobs and shapes how they behave at work and get engaged. This is because the higher positive affectivity an employee possesses, the higher the employee will likely be engaged with the work environment and interact with others toward achieving positive work outcomes (Shen et al. 2022).

Past studies on positive affectivity personality have recognised it as an essential dimension of the affective experience. Employees with high positive affectivity show high levels of energy, enthusiasm and optimism (Ma et al. 2023; Watson et al. 1988). According to Macey and Schneider (2008), these dimensions are related to the dimensions of employee engagement, such as vigor, dedication and absorption. By this description, positive affectivity has been explored empirically to be related to employee engagement (Fukuzaki & Iwata 2023; Sirisetti 2012).

Among the few empirical studies that investigated this relationship, the survey of Langelaan et al. (2006) on Dutch employees provided support for the positive relationship between employee engagement and extraversion trait, an indicator of positive affectivity involving an employee predisposition toward sociability, high activity, and cheerfulness. Also, Rhoden and Joyce (2023) stated that an individual with positive affectivity personality has a form of affect regulation that enables employees to maintain a positive mood and be engaged while performing tasks in stressful work conditions. Yan et al. (2023) argued that improved employee engagement happens when positive affectivity personality among an employee's input in decision-making, supporting growth and development with learning opportunities.

Also, the longitudinal study of Salanova et al. (2011) among school teachers and university students states that positive affectivity allows positive mood and activates approach-oriented behaviours, which are believed to influence engagement. Furthermore, Fukuzaki and Iwata (2023) did a survey study on positive affectivity and its relationship to employee engagement. Their findings revealed that positive affectivity is characterised by high levels of enthusiasm, activation and positive emotion toward the workplace and having this characteristic will prompt the employees to direct energy to work and be highly engaged. According to Ababneh (2015), positive

affectivity personality influences the amount to which individuals are motivated to take responsibility and exercise self-control. These factors can generate a feeling of obligation toward their organisation in employees (Prokesova et al. 2019; Thian et al. 2015). Also, when employees experience positive affectivity more frequently regarding themselves and their working environment, they will become more motivated and get engaged (Hong et al. 2021; Young et al. 2018). Based on this assumption and in line with the theory above, this study argues that individual positive affectivity would influence individuals to be engaged at work.

*H4: Positive affectivity is positively related to employee engagement*

### **3.6 THE RELATIONSHIP BETWEEN POSITIVE AFFECTIVITY PERSONALITY AND SOCIAL SUPPORT**

According to the COR Theory (Hobfoll 1989), job resources do not exist in isolation but play a motivational role that encourages a positive attitude toward the job. Therefore, the COR Theory implies that if an organisation wants to promote a positive attitude among workers, they must be ready to invest and increase resources such as a supportive work environment (Hobfoll et al. 2018). For example, an individual will exhibit positive affectivity when receiving emotional support from a teammate or supervisor. These resources will work toward the achievement of personal and organisational goals. Also, such individuals will be more energetic and actively participate in social activities (Lyubomirsky et al. 2005).

Empirically, Huang et al. (2023) stated that social support is a predictor of the various behaviours of positive affectivity, such as being innovative, creating plans, creative thinking, proposing solutions and new ideas and improving friendly relationships among teammates. Also, individuals with positive affectivity always strive to create a positive working environment for others to be happy with their work (Shen et al. 2022). As a result, obtaining support and cooperation from both the organisation and team members will give them the enthusiasm to influence and improve the mood of others around them. As such, negative affectivity circulating in the workplace will be reduced (Ma et al. 2023). According to Çivitcia (2015), employees will increase positive affectivity and lower negative affectivity when they obtain social

support from co-workers or supervisors. This is because when employees with positive affectivity personality obtain substantial support from a co-worker or supervisor, they gain more self-esteem and confidence to relate with others. This reduces stress and loneliness among employees. Similarly, Hamama et al. (2013) conducted a study to examine whether teachers can still exhibit positive affectivity on work regardless of the stress that comes with teaching. According to their findings, teaching is a highly stressful profession, which can sometimes affect the teacher's ability to maintain their positive affectivity; but when the necessary support is in place, the teachers will feel energetic, enthusiastic, alive, cheerful and active.

Furthermore, positive affectivity personality helps to build the effectiveness of various self-improvement goals and objectives, and social support is no exception. For instance, when individuals with positive affectivity personality carry out various tasks, a supporting and encouraging message from a supervisor or their teammates is perceived by them as a means to be more obligated toward the work goal (Diener et al. 2020; Norcross & Vangarelli 1989). According to John and Srivastava (1999), positive affectivity personality has a strong sociability component, and individuals with such a trait tend to be friendly, active, and assertive. As such, they have more opportunities to seek out and perceive social support as a means to remain active at work (Amirkhan et al. 1995; Hong et al. 2021). In line with this, this study expects that positive affectivity is positively related to social support. Hence, this study proposes the following hypothesis:

*H5: Positive affectivity personality is positively related to social support*

### **3.7 THE MEDIATING ROLE OF SOCIAL SUPPORT ON THE RELATIONSHIP OF POSITIVE AFFECTIVITY PERSONALITY AND EMPLOYEE ENGAGEMENT**

While positive affectivity has been shown to be related to employee engagement, the process through which positive affectivity influences employee engagement has not been explored. This study assumes that social support will mediate the relationship between these variables (positive affectivity and employee engagement). According to the COR Theory (Hobfoll 1989), personal resources (e.g., individual personality)

through job resources may lead to a positive work outcome. The COR Theory states that job resources such as social support can play a motivational role in building employees' personal resources (e.g., individual personality) toward their job and organisation, which, in turn, will lead to employee engagement (Hobfoll et al. 2018). This finding was supported by Bakker and de Vries (2021), stating that personal resources and job resources (e.g., social support) relate with each other to predict employee engagement. According to Huang et al. (2023) positive affectivity personality will be facilitated through social support, which will, in turn, encourage the employee to stay engaged in their work.

Also, Rhoden and Joyce (2023), in their study, revealed that an individual with positive affectivity would display a higher level of energy through social support toward stronger work activities. That is, a positive affectivity individual through the availability of social support will direct performance toward achieving organisational goals. Also, Macey and Schneider (2008) stated that positive affectivity through work conditions would be engaged at work. That is, the level of social support received will mediate a positive affectivity individual to be highly engaged. Therefore, applying this perspective to the COR theory, this study expects social support to mediate the relationship between positive affect and employee engagement. Thus, the following hypothesis is proposed:

*H6: Social support mediates the relationship between positive affectivity and employee engagement*

### **3.8 PROACTIVE PERSONALITY AND EMPLOYEE ENGAGEMENT**

According to the COR Theory (Hobfoll 1989), personal resources such as proactive personality will enhance work plans and increase intrinsic and extrinsic motivations, which, in turn, increases the employee engagement level in organisations. The COR Theory also suggests that personal resources can help employees improve their potential to cope with job demands and be engaged successfully. Therefore, in line with Bakker et al. (2020), who revealed that personal resources, such as proactive employees, would do better at work and be engaged because they take personal initiative and involve themselves in network building. According to Prokesova et al.

(2019), the efficient management of proactive employees will promote enthusiasm, focus, and energy in the workplace, which will benefit organisations and promote engagement.

Scholars have theorised a linkage between proactive personality and several job constructs. According to Zahoor (2020), proactive employees are committed to the tasks assigned and occupational commitment, which, in turn, influences job engagement positively. As such, individuals with a proactive personality are always committed to high levels of task and job performance, which, in turn, positively influence their level of engagement (Zhang et al. 2021). Also, Lin et al. (2022) examined individuals with various occupational backgrounds and asserted that proactive personality is associated with high task and employee engagement. According to Prokesova et al. (2019), being proactive positively affects employee behaviours and attitudes because a proactive employee recognises and builds opportunities that create favourable working conditions for engagement.

Furthermore, Zahra and Kee (2021) study on proactive personality, job performance and employee engagement in various organisations in Netherland showed a relationship between proactive personality and employee engagement among respondents with high proactive personality. According to Bakker et al. (2020), employees with higher proactive personality are prompt to be more engaged because they tend to display personal initiative and build a demanding work environment that promotes the absorption and enthusiasm which is characteristic of engagement. Also, Xuehui et al. (2021) stated that employees with higher proactive personality are likely to be more engaged because individuals who possess proactive personality are usually immersed in their work. A proactive personality would lead to an increase in engagement by taking personal initiative and improving the work circumstances. An employee will take personal initiative to do more expected of them and strove to be actively involved in organisational problems were more viable to be engaged in their profession. In taking personal initiative to influence the work conditions, a proactive employee will get highly engaged and committed to work (Caniëls et al. 2018; Xuehui et al. 2021). Thus, this study proposed the following hypothesis:

*H7: Proactive personality positively related to employee engagement*

### **3.9 THE RELATIONSHIP BETWEEN PROACTIVE PERSONALITY AND SOCIAL SUPPORT**

According to the COR Theory (Hobfoll 1989), job resources such as social support play an important role in reinforcing positive images of oneself. Employees will show more personal initiative to solve such challenges at work by utilising job resources such as social support (Albrecht et al. 2021; Bakker & de Vries 2021). In relating proactive personality to social support, Zahra and Kee (2021) noted that employees who are less proactive would be engaged through social support. This is because proactive individuals obtain social support and use it to effect changes in their environment. Proactive employees take advantage of these benefits by actively seeking and creating relationships with people who can assist them in pursuing activities beyond their ability to manage alone (Wang & Lei 2021; Wang et al. 2017)

Furthermore, Wang and Lei (2021) stated that proactive personality can act as a driving force that influences how individuals attain social support. That is, proactive employees will manage their resources successfully through support from their organisation. A focal argument is that having supportive supervisors and teammates will promote a higher feeling of self-determination (Lin et al. 2022). As such, a team of supportive supervisors and teammates will increase employees' ability and eagerness to initiate future-focused change (Lin et al. 2022; Wu & Parker 2017). Also, studies have revealed that proactive personality positively predicts different forms of social support such as; creative performance, idea implementation personal and organisational initiative (Hidayat et al. 2023; Madjar et al. 2002).

Proactive employees always implement positive changes in the organisation these changes require other supports, such as; information, trust, and support shared among employees (Fan et al. 2022; Grant & Ashford 2008). Also, Ugwu et al. (2021) revealed that proactive behaviour impacts how employees perceive job resource, such as social support. This is because when employees are encouraged to generate and bring ideas to organisations, they need motivation to engage in proactive behaviour. Furthermore, social support may define its effect on proactive behaviour by

encouragement and outcome-focused components such as prizes and plaudits for successful performance, which may impair intrinsic motivation for proactivity (Wang & Lei 2021).

A study by Hidayat et al. (2023) on the relationship between proactive personality and work characteristics such as supervisor and co-worker support expressed that proactive personality positively relates to social support. This is because employees with a proactive personality always seek substantial support from their supervisor to gain more confidence to promote innovation and creativity at work (Fan et al. 2022; Morrison & Phelps 1999). Furthermore, a previous study deduced that proactive people establish a positive relationship with co-workers and influence their environments through a wide range of activities in the organisation (Bakker et al. 2020; Grant & Ashford 2008). Therefore, in line with prior theoretical and empirical evidence discussed above, this study proposes that proactive personality positively relates to social support.

*H8: Proactive personality is positively related to social support*

### **3.10 THE MEDIATING ROLE OF SOCIAL SUPPORT ON THE RELATIONSHIP BETWEEN PROACTIVE PERSONALITY AND EMPLOYEE ENGAGEMENT**

Although previous studies have focused on proactive personality as an antecedent of employee engagement, attention has not been given to the underlying variables that mediate the relationship between proactive and employee engagement. Therefore, following the COR Theory (Hobfoll 1989), it is expected that job resources, such as social support, will serve as a motivational process through which proactive personality influences employee engagement. According to the COR Theory, employees will activate personal initiative through the intervention of social support, and this, in turn, may result in positive organisational outcomes such as employee engagement (Hobfoll et al. 2003, 2018). This idea is consistent with Lin et al. (2022), who argued that employees who improve their initiative and generate ideas are contingent on the availability of resources such as a supportive work environment and vital information toward positive work outcomes.

In support of COR Theory, the JD-R Theory (Bakker & Demerouti 2008) argued that social support from co-workers and the supervisor would increase coordination and impact access to information needed to effect change in the organisation toward a positive outcome such as engagement. Also, Costantini and Weintraub (2022) stated that proactive individuals deal with challenges on an assigned task or general activities at work through the availability of social support to achieve a positive work outcome. This is because proactive employees increase their effectiveness by employing personal initial and future-oriented action to either their work or the organisation (Grant & Ashford 2008; Ma et al. 2023). As such, an employee who possesses proactive personality sees social support primarily from the supervisor as a motivation to be more involved and engaged at work.

Furthermore, proactive employees will be encouraged to shoulder responsibilities at their workplace to generate change (Morrison & Phelps 1999), improve work procedures (Scott & Bruce 1994), and effectively search for opportunities to move the organisation forward (Frese & Fay 2001), through the availability of a supportive work environment. This, in turn, can lead to employee dedication and engagement at work. Therefore, in line with the COR Theory, which states that resources such as job resources cannot act in isolation but relate with other resources, such as personal resources, to predict work outcomes positively. This study expects social support to serve as a motivational process through proactive employees will become engaged at work. Thus, this study proposes the following hypothesis:

*H9: Social support will mediate the relationship between proactive personality and employee engagement*

### **3.11 THE RELATIONSHIP BETWEEN EMPLOYEE RESILIENCE AND EMPLOYEE ENGAGEMENT**

Although some studies stated that employee resilience and employee engagement are reciprocally related (Amir & Mangundjaya 2021; Ojo et al. 2021), limited studies have identified employee resilience as one of the drivers of employee engagement (Amir & Mangundjaya 2021; Ojo et al. 2021; Wiroko & Sugiharti 2022). Theorising the JD-R Model (Bakker & Demerouti 2008), this study contends that employee resilience

promotes employee engagement. This is because resilient employees are self-assured in their talents and perceive their work environment as supportive and resourceful increasing employee engagement (Bakker & Demerouti 2008). According to Liang and Cao (2021), resilience is a motivational mechanism that allows employees to engage in goal-directed behaviour that influences their engagement. Furthermore, Wang and Wang (2023) proposed that resiliency at the workplace allows employees to view adversity and setbacks as chances for learning, growth, and development. As a result, employees will become more innovative and adaptable to achieve organisational and meaningful goals, which predicts work engagement (Malik & Garg 2017).

Several studies on employee resilience suggest that a resilient individual can deal with difficult circumstances and have different skills to manage workplace obstacles (Chikobvu & Harunavamwe 2022; Hanu & Khumalo 2023; Wang & Wang 2023). As a result, they demonstrate a high level of readiness to handle challenging events in the workplace, which ultimately supports work engagement. Also, resilient individuals possess numerous positive characteristics, such as enthusiasm and energy (Block & Kremen 1996), openness to new experiences and inquisitiveness (Waugh et al. 2008), vitality, and self-assurance, which have a high proclivity to build meaningful workplace relationships (Fredrickson et al. 2003), which, in turn, promotes effective employee engagement (Amir & Mangundjaya 2021).

Cooke et al. (2016) study on employee resilience and employee engagement stated that resilient nurses face obstacles and demonstrate self-confidence in their abilities, leading to increased workplace engagement. Employee resilience generates positive behaviours and attitudes in the workplace, which can considerably boost employee engagement (Malik & Garg 2017). Also, Ojo et al. (2021) indicated that employees' ability to recover from adversity is strongly related to employee engagement. Chikobvu and Harunavamwe (2022) study on the impact of emotional intelligence and resilience on work engagement amongst nurses in public hospitals stated that employee resilience might prevent individuals from becoming disengaged by empowering them to cope with high job demands. Thus, based on the empirical study and Theory of JD-R, this study posits that employee resilience adds to employee engagement, resulting in the following hypothesis:

*H10: Employee resilience is positively related to employee engagement*

### **3.12 THE RELATIONSHIP BETWEEN EMPLOYEE RESILIENCE AND SOCIAL SUPPORT**

According to the JD-R Theory (Bakker & Demerouti 2008), social support is a critical resource that can help resilient employees recover quickly from adversity and successfully manage stress. That is, job resource availability and accessibility in the workplace will influence an employee's psychological needs by improving progressive growth and development (Bakker & de Vries 2021). Furthermore, according to Sevda et al. (2021), the organisation always instils change, and while employees adjust to this change, it usually results in various pressures. As a result, when implementing change, a friendly work atmosphere, knowledge sharing, and words of encouragement will develop employee resilience (Sevda et al. 2021).

Some studies have shown that building employee resilience in an organisation is significant to social support (He et al. 2023; Sevda et al. 2021). This is because it creates room for building trust, information sharing, and friendship, which helps the employees bounce back from a setback. Furthermore, He et al. (2023) indicated that individuals would be more resilient when faced with stress through the necessary assistance and support. This is because a resilient employee will need social support to adapt to crises, cope with challenges, particularly stressful jobs, and recover from adversity (Qiu et al. 2020). Thus, the availability of social support will assist employees in recovering from setbacks (Sevda et al. 2021).

Furthermore, studies contended that social support helps employees build a higher resilience. For example, Liu et al. (2021) study of 23,192 participants aged 18–85 suggested that social support must be improved to develop resilience among nurses in the First Affiliated Hospital of the University of Science and Technology of China. This is because nurses will be resilient towards their work when they receive the required support and feedback from their superiors. Similarly, Chang et al. (2023) argued that social support is required for employees to bounce back from adversities and remain emotionally and physically fit. Furthermore, according to Hobfoll et al. (2018), organisations can build environments that enable and enhance resilience by

providing the resources needed to recover from setbacks and hurdles. In addition, Sevda et al. (2021) study on the mediating function of resilience in the relationship between social support and work-life balance found that, resilient employees with greater social support were better able to deal with organisational pressures than those with less support. In accordance with the JD-R Model, creating social support will assist employees in recovering from a setback. Thus, the following hypothesis was offered in this study:

*H11: Employee resilience is positively related to social support*

### **3.13 THE RELATIONSHIP BETWEEN SOCIAL SUPPORT AND EMPLOYEE ENGAGEMENT**

According to the JD-R Model (Bakker & Demerouti 2008), social support is a useful resource for enhancing employee engagement in organisations. The JD-R Model recognises social support as a motivational process that can motivate employees to be engaged toward the achievement of work and personal goals.

Kahn (1990) stated that the level of supportive interpersonal and trust relations at the workplace leads to high employee engagement among employees. This is because the role of trust is fundamental to building engagement, as employees trust that their input of personal resources, time and energy will be compensated (Saks 2022). Also, employees who view their work as more supportive, cohesive, and involving were observed to be more satisfied and dedicated to their jobs and are also likely to be more engaged (Khusanova et al. 2021). Employees who get adequate support from their workplace may feel dedicated and energetic and may often be wholly engrossed at work (Imran et al. 2020).

Empirically, studies have shown a positive relationship between social support and employee engagement. For example, Humphrey et al. (2007) argued that social support shows the degree to which an organisation gives opportunities for assistance, which are most possibly essential for employee engagement. Also, May et al. (2004) stated that social support is a psychological condition that impacts employee engagement and precisely recognised relations of supportive co-workers and

supervisors as positive indicators of psychological safety. Furthermore, Kiema-Junes et al. (2020) stated that social support impacts the psychological needs of employees who frequently and repeatedly need to abide by challenging work situations. This is because it is essential in dealing with high job demands and engaging in extra-role activities. Also, the support, advice and relationship that employees share at the workplace positively affect their state of engagement (Kiema-Junes et al. 2020).

According to Wu et al. (2020), having a supportive workplace improves employees' ability to be engaged at work, whereas the absence of a supportive workplace reduces the possibility of being engaged at work. That is because when employees are allowed to express their feelings and opinions and are not punished or segregated for doing so, stress levels are lessened, leading the employee to be fully engaged (Wu et al. 2020). This finding is similar to Albrecht et al. (2023), who established that when employees believe they are psychologically safe and will not agonise over or receive negative consequences to self-image, career, or status for conveying their authentic selves to work, such employees will be motivated to be engaged at work. Also, Inggamara et al. (2022) stated that organisations could create environmental conditions that will lead to work engagement by providing a resourceful work environment to help balance work and personal needs. According to their finding, when employees sense support from their organisation, they will be dedicated and more focused on their work. Therefore, based on the JD-R Model and previous findings, social support is related to engagement. This study proposes the following hypothesis:

*H12: Social support is positively related to employee engagement*

### **3.14 THE MEDIATING ROLE OF SOCIAL SUPPORT ON EMPLOYEE RESILIENCE AND EMPLOYEE ENGAGEMENT**

As discussed in the prior sections above, there is good theoretical and empirical evidence that supports the relationship between employee resilience and social support (Amir & Mangundjaya 2021; Ojo et al. 2021; Wiroko & Sugiharti 2022), social support and employee engagement (Inggamara et al. 2022). However, studies on social support as a mediator between employee resilience and employee engagement are exceedingly scarce. Following the JD-R model, social support is a motivating factor related to

employee resilience to predict engagement at work. According to the JD-R Model (Bakker & Demerouti 2008), social support develops resilience among employees and assists them in reaching their goals due to its intrinsic and extrinsic motivational potential. Also, the model implies that employee resilience can be increased by providing social support, which leads to employee engagement. According to Bakker and Vries (2021), employee resilience and social support have been connected reciprocally to influence employee engagement. The link between these resources boosts the employee's likelihood of engagement.

In support of the JD-R Model (Bakker & Demerouti 2008), the COR Theory states that social support is vital in building resilience among employees. This is because it allows for the development of trust, friendship and information sharing, which leads to engagement. For example, employees' ability to recover from a setback depends on resources such as social support, which will help employees become more engaged at work (Chikobvu & Harunavamwe 2022). Also, Gröschke et al. (2022) contended that employee resilience is a skill that can be cultivated through organisational enablers such as social support. A resilient employee would grasp hard events and figure out the best way to manage them with the help of these organisational enablers, leading to employee engagement (Ojo et al. 2021).

Also, Malik and Garg (2017) stated that organisations help their workers be more resilient by creating a learning-oriented culture and empowering leadership, which leads to employee engagement. That is because resilient employees can learn from events and openly share information, resulting in employee engagement (Amir & Mangundjaya 2021). In line with this, this study contends that social support will mediate employee resilience, resulting in employee engagement. Thus, this study proposes the following hypothesis:

*H13: Social support will mediate the relationship between employee resilience and employee engagement*

Table 3.1 below summarises research question, objectives, and hypotheses of the study.

Table 3.1 List of research questions, objectives and hypotheses of the study

Research Question	Research Objectives	Hypotheses
Research Question (1)	Autotelic Personality-Employee Engagement	H1: Autotelic Personality- Employee Engagement
Research Question (2)	Autotelic Personality -Social support	H2: Autotelic Personality -Social support
Research Question (3)	Autotelic Personality-Social Support- Employee Engagement	H3: Autotelic Personality -Social Support- Employee Engagement
Research Question (4)	Positive Affect Personality - Employee Engagement	H4: Positive Affect Personality - Employee Engagement
Research Question (5)	Positive Affect Personality-Social Support	H5: Positive Affect Personality-Social Support
Research Question (6)	Positive Affect Personality-Social Support- Employee Engagement	H6: Positive Affect Personality-Social Support- Employee Engagement
Research Question (7)	Proactive personality- Employee Engagement	H7: Proactive Personality- Employee Engagement
Research Question (8)	Proactive personality- Social Support-	H8: Proactive Personality- Social Support
Research Question (9)	Proactive Personality- Social Support- Employee Engagement	H9: Proactive Personality- Social Support- Employee Engagement
Research Question (10)	Employee Resilience- Employee Engagement	H10: Employee Resilience- Employee Engagement
Research Question (11)	Employee Resilience- Social Support-	H11 Employee Resilience- Social Support
Research Question (12)	Social Support- Employee Engagement	H12: Social Support- Employee Engagement
Research Question (13)	Employee Resilience-Social Support- Employee Engagement	H13: Employee Resilience-Social Support- Employee Engagement

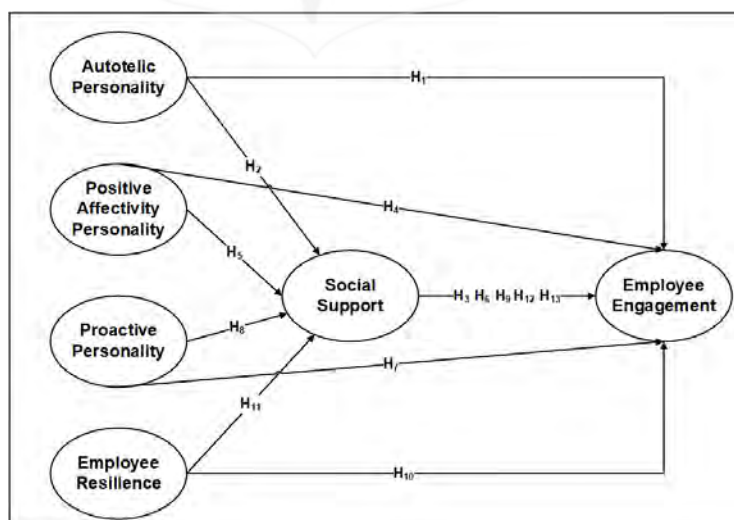


Figure 3.1 Conceptual framework

## **CHAPTER IV**

### **RESEARCH METHODOLOGY**

#### **4.1 INTRODUCTION**

The chapter describes the method and procedures used in this study. Also, it emphasises the population and the process for sample selection. The chapter includes the research design, sampling techniques, instrumentation and collection of data procedure, process of data screening, analysis of data and statistical techniques and summary.

#### **4.2 RESEARCH DESIGN**

A research design is a pre-planned and structured survey used to gather information to answer the research question and solve the research problems (McMillan & Schumacher 1993). Different research designs are commonly used, including participant observation, survey research, and the ex-post facto method. In this present research, survey research was used.

A survey is the selection of a required sample from a pre-determined population of interest to acquire some quantity of data from the research's sample and make general judgements about the larger population when the study is over (Kelley et al. 2003). Therefore, this study used a survey design because the selected sample reflected the general population of this study. Also, several studies stated that survey design is employed to explain the interrelationship and how each variable influences one another (Fraenkel & Wallen 2009). Therefore, the survey design was selected for this study since it examined the interrelationship and effect of variables on one another and collected information on nurses' personalities in health services through questionnaires. Also, survey design allows the collection of necessary data from a large population,

which might not be possible or easy if other methods, such as participant observation and ex-post-facto method, are used (Fraenkel & Wallen 2009). Previous studies on health services research stated that survey design is the commonly adopted research design used when collecting information on attitudes and behaviour in health services (Akazili et al. 2008; Zere et al. 2006). As such, a survey design was used for this study.

Furthermore, within the survey design, the cross-sectional design was used. According to Wiersma (1986), cross-sectional entails collecting the data required at one point in time from relatively few people from the population of interest. Since this study administered the questionnaire and collected the required data at only one time from more samples, a cross-sectional design was used. Fraenkel and Wallen (2009) stated that cross-sectional design entails assessing the relationship among variables and collecting data on many variables. Since this study assessed the relationship between many variables, such as selected trait engagement, resilience, employee engagement and social support, cross sectional survey was needed to provide the necessary information to examine the relationship between the focal variables in this study. Also, previous studies on the relationship between personality and employee engagement among nurses in health care service stated that cross-sessional is consistent and acceptable when collecting information on personality traits and outcomes (Hamid & Shah 2018; Mount et al. 2006). Figure 4.1 below represents the research design of the study.

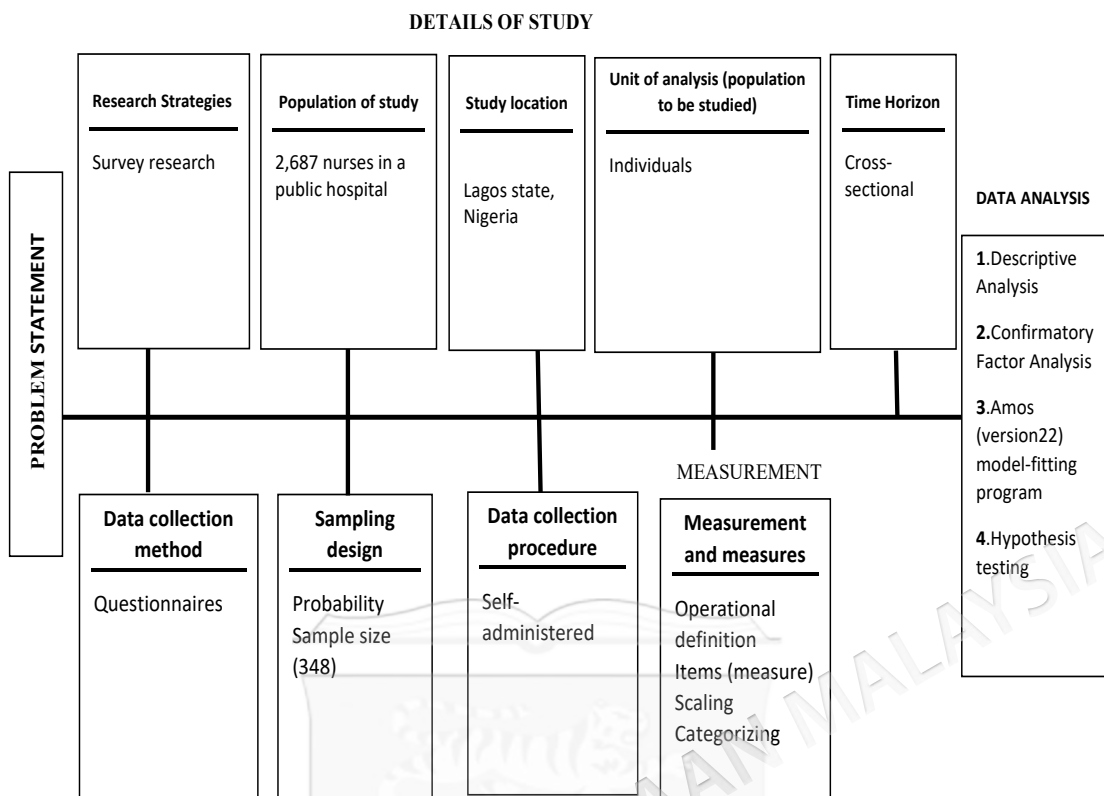


Figure 4.1 Research design of the study

Source: Sekaran and Bougie 2016

### 4.3 POPULATION AND SAMPLE OF THE STUDY

A population is the total number of items, persons, and events suggested to be studied (Sekaran & Bougie 2010). Also, Creswell (2010) states that a population is a group of people or objects with the same features or characteristics. Health facilities in this context denote organisations whose purpose and resources are given to enhance patients' health and well-being through health promotion activities. According to the National Administrative Structure in Nigeria (NASN), health facilities are divided into private and public health care providers. Public health care providers include public health centres and hospitals, while private care providers are private clinics and hospitals. However, due to the confidentiality of private care providers over their operations, there is a lack of data in respect of private care providers in this state. Therefore, this research was carried out in public hospitals and health care. According to the statistics from the Healthcare Facilities Monitoring and Accreditation Agency (HFMA), there are 26 registered Public Hospitals and 272 public healthcare centres in Lagos state, the western region of Nigeria. The choice of Lagos state is that it is

informed by accessibility, distance, data availability and high numbers of public health facilities. Also, the quality of services in public hospitals in Lagos state is still below standard, especially the attitude of the nurses toward patients (Coker et al. 2018). Thus, this study is limited to data obtained from a population of all 2687 nurses in public health facilities (healthcare centres and hospitals) in the states under reference. This is considered a useful factor in achieving the research objective of this study. Also, the sampling frame for this study is a list of registered nurses working in Lagos state public hospitals and healthcare centres. Table 4.1 below presents the total number of hospitals and public health cares in Lagos state.

Table 4.1 List of Public Health Cares and the number of nurses in 20 Local Government areas in Lagos, Nigeria

Local government areas	The hospital and health cares	Number of nurses
Alimosho	<ul style="list-style-type: none"> <li>▪ Alimosho General Hospital Alimosho, Lagos.</li> <li>▪ Igando-Ikotun phc.</li> <li>▪ Primary Health Centre, Akowonjo</li> </ul>	280
Ajeromi-Ifelodun	<ul style="list-style-type: none"> <li>▪ Ajeromi General Hospital, Ajegunle</li> </ul>	68
Kosofe	<ul style="list-style-type: none"> <li>▪ General Hospital Gbagada, Ketu Ejinrin General Hospital, Ogudu Primary Health Centre, Oworo Primary Health Care Centre, Oworonshoki, Mende Primary Health Care Centre, Mende</li> </ul>	217
Mushim	<ul style="list-style-type: none"> <li>▪ Mushin General Hospital</li> <li>▪ Mushin Primary Health Centre</li> </ul>	140
Oshodi-Isolo	<ul style="list-style-type: none"> <li>▪ Isolo General Hospital, Mafoluku Primary Health Centre</li> <li>▪ Oshodi Primary Health Centre, Ajeabo Healthcare Centre, Port Health Services, FMOH.</li> </ul>	250
Ojo	<ul style="list-style-type: none"> <li>▪ Ojo Primary Health Care Centre, Ilogbo Central Hospital</li> <li>▪ Nigerian Navy Hospital, Ojo Irede Public Health Centre</li> <li>▪ Lagos State Public Health Centre Agbel, Isashi Primary Health Centre</li> </ul>	230
Ikorodu	<ul style="list-style-type: none"> <li>▪ General Hospital Ikorodu</li> <li>▪ Agbowo General Hospital</li> <li>▪ Ikorodu Local Government Primary Health Care Centre</li> <li>▪ Lagos State Primary Health Care Centre, Odonla Ikorodu, Lagos</li> </ul>	220
Surulere	<ul style="list-style-type: none"> <li>▪ General Hospital Surulere</li> <li>▪ Lagos University Teaching Hospital</li> </ul>	245
Agege	<ul style="list-style-type: none"> <li>▪ Orile Agege General Hospital</li> </ul>	70

to be continued...

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Ifako-Ijaiye	<ul style="list-style-type: none"> <li>▪ Ifako Ijaiye General Hospital</li> <li>▪ Primary Health Centre - Agbado</li> </ul>	130
Shomolu	<ul style="list-style-type: none"> <li>▪ General Hospital, Shomolu</li> </ul>	95
Amuwo-Odofin:	<ul style="list-style-type: none"> <li>▪ Amuwo Odofin General Hospital;</li> </ul>	115
Lagos mainland	<ul style="list-style-type: none"> <li>▪ Mainland Hospital, Yaba, Lagos</li> </ul>	75
Ikeja	<ul style="list-style-type: none"> <li>▪ Ikeja General Hospital</li> </ul>	60
Eti-osa	<ul style="list-style-type: none"> <li>▪ Island General Hospital Eti-Osa, Lagos</li> </ul>	70
Badagry	<ul style="list-style-type: none"> <li>▪ Badagry General Hospital</li> </ul>	95
Apapa	<ul style="list-style-type: none"> <li>▪ General Hospital, Apapa</li> </ul>	105
Lagos island	<ul style="list-style-type: none"> <li>▪ Lagos Island General Hospital</li> </ul>	80
Epe	<ul style="list-style-type: none"> <li>▪ Epe General Hospital</li> </ul>	75
Ibeju-Lekki	<ul style="list-style-type: none"> <li>▪ Ibeju Lekki General Hospital, Akodo</li> </ul>	89
<b>Total</b>		<b>2687</b>

Source: Ministry of Health Lagos 2016

#### 4.3.1 Sample unit

Sample units are the units of analysis where the sample required for a study is collected. It also denotes a singular individual within the population of interest. The primary reason for the sampling unit is that the results and information obtained from the sampled unit can be generalised to the entire population of interest. Sekaran and Bougie (2016) defined the sample unit as an element or a combination of elements accessible to the researcher at various phases of the sampling procedures. The sampling unit of this study is individual registered nurses employed at public hospitals and healthcare centres in Lagos State. The choice of selecting a registered nurse is necessitated because full-time registered nurses have rich knowledge about the hospital operations related to the issues under examination in this study.

#### 4.3.2 Sample size

The sample size refers to the proportion of the population that the researcher seeks to generalise (Creswell 2010; Springer 2010). Meanwhile, determining the sample size depends on the statistical measure used for the study (Creswell 2010). Structural Equation Modelling (SEM), Confirmatory Factor Analysis (CFA), and Principal Component Analysis (PCA) were used as statistical methods in this study.

Concerning the SEM sample size, Hoe (2008) affirms that as a rule of thumb a sample of more than 200 could give statistical power for data analysis. However, Hair et al. (2010) suggests that the sample size in SEM be chosen based on the complexity of the model. For example, if a model includes five or less constructs and each construct contain at least three or more items (observed variables), and the high item has communalities of .6 or higher, a sample size of at least 100 can be employed efficiently. However, a minimum of 300 samples should be used for a model with five to seven dimensions, lower communalities of 0.45 or less, and constructs with fewer than three items. Tabachnick and Fidell (2007) suggested that at least 300 examples be used for the examination of Principal Component examination (PCA). They emphasised that if the solution has additional loading marker variables ( $>.80$ ), 150 sample sizes may be sufficient. Similarly, Osborne (2014) stated that for various studies they have studied, about 63% of the researchers adopt a ratio of 10:1 or less as a benchmark for determining sample size.

Almost all of the above statements on sample size selection are based on various rules of thumb. Although many studies believe that the rule of thumb is adequate for determining the required sample size, the rule of thumb was not used in this study. This is because of the difficulty in knowing which rule of thumb is to be chosen. Furthermore, this study intends to reduce the level of sample error as much as possible, which is generally related to a few numbers of sample sizes. Thus, the present study uses sampling size selection techniques from Slovin's formula in estimating the sampling size. This is because Slovin's formula allows studies to sample the population with a desired degree of accuracy. It gives an idea of how large the sample size needs to be to ensure reasonable accuracy of the result (Slovin 1960). Also, Slovin's formula is used when nothing or little is known about the behaviour of a population. Since this present study knows little about the behaviour of the population of the study, Slovin's formula will be used. The Slovin's formula is given as:

$$n = N / ((1 + Ne^2) ) \quad (4.1)$$

Whereas

n= no. of samples

N= total population

$e = \text{error margin} / \text{margin of error}$

Since the study population (N) is 2,687, margin of error or error of tolerance is 0.05, thus the sample size was determined as follow:

$$n = 2,687 / [1 + 2,686 (0.05)^2] = 348$$

With the total number of nurses in 26 registered public hospitals and 272 public healthcare centres, this study will use a sample of 348 nurses from public healthcare. According to Kline (2016), a sample size of more than 100 is sufficient to achieve the appropriate degree of statistical power with a given model. Also, the sample size of this study adequately represents the relevant population in terms of SEM analysis (Hoe 2008). This is because 100 is regarded the minimum size for utilising SEM (Kline 2016). Thus, as recommended by other studies, this study' sample size exceeds the required sample size (Kline 1998).

#### **4.3.3 Sampling techniques**

There are numerous sample procedures to use in research. However, the major sample techniques are probability or non-probability sampling techniques (Creswell 2010). According to Creswell, in probability sampling, individuals chosen as the sample of study are supposed to be representative of the entire population, whereas, in non-probability sampling, participants are chosen because they have some characteristics that the researcher wishes to investigate, they are eagerly available and can be easily located. Springer (2010) stated that probability sampling encompasses all sampling procedures in which individuals have equal chances of being chosen from the population of interest. While non-probability sampling is a strategy in which the probability of each object in a population being selected in a study is uncertain (Springer 2010). This present study used probability sampling because it covered a large area and planned to generalise the sample for the entire population (Creswell 2010). Also, within probability sampling, a stratified random sampling technique was utilised.

Stratified random sampling is a technique where a study's population of similar characteristics or traits is classified into smaller groups (Johnson & Christensen 2004). These subgroups derived from the population are called strata, which allow maximum similarity within the sub-group (Johnson & Christensen 2004). For this study, the public health centres and hospitals in the western part of Nigeria are the stratum. Meanwhile, there are two types of stratified random sampling: proportional allocation and equal allocation.

In proportional allocation, each stratum in the entire group was computed based on the proportion of the population size, which is the larger the size, the larger contribution made to the sample size. However, in the case of equal allocation, each sub-group contributes equally to the sample. Therefore, proportional allocation was adopted in this study. This is done to ensure that each stratum is represented equally in the overall sample for adequate population generalisation. According to Johnson and Christensen (2004), when a proportional stratified random sample is used, the sample's proportions on the stratification are nearly or equal depiction of the population. The formula for calculating proportional stratified random:

$$\text{SAMPLE} = \frac{IS}{TP} \times SP = PSM \quad (4.2)$$

SP = Stratum population

TP = Total population and

IS = Identified sample

PSM= Proportional Stratified Sample

The Proportional Stratified Sample =  $IS/TP \times SP = PSM$ ). TP =2,687, IS = 348. SP is based on the number of each nurse in the hospital. When the sample to be used has been identified in each stratum (Local Government Areas), the researcher then used random sampling to select each sectional heads which includes the assistant and deputy directors of nursing to participate in the survey. Table 4.2 below presents the total number of the proposed sample size of nurses in each public hospital and health cares in Lagos state.

Table 4.2 Proposed sample size of nurses in Lagos Nigeria

No	Local Government Areas	The Hospital and Health Cares	Total Number of Nurses	Proportional Stratified Sample
1	Alimosho	<ul style="list-style-type: none"> <li>▪ Alimosho General Hospital Alimosho, Lagos, Igando-Ikotun Phc.</li> <li>▪ Primary Health Centre, Akowonjo</li> </ul>	280	36
2	Ajeromi-Ifeلودun	<ul style="list-style-type: none"> <li>▪ Ajeromi General Hospital, Ajegunle</li> </ul>	68	9
3	Kosofe	<ul style="list-style-type: none"> <li>▪ General Hospital Gbagada, Ketu Ejinrin General Hospital , Ogudu Primary Health Centre, Oworo Primary Health Care Centre, Oworonshoki, Mende Primary Health Care Centre, Mende</li> </ul>	217	28
4	Mushin	<ul style="list-style-type: none"> <li>▪ Mushin General Hospital</li> <li>▪ Mushin Primary Health Centre</li> </ul>	140	18
5	Oshodi-Isolo	<ul style="list-style-type: none"> <li>▪ Isolo General Hospital</li> <li>▪ Mafoluku Primary Health Centre</li> <li>▪ Oshodi Primary Health Centre</li> <li>▪ Ajeabo Healthcare Centre</li> <li>▪ Port Health Services, Fmoh.</li> </ul>	250	32
6	Ojo	<ul style="list-style-type: none"> <li>▪ Ojo Primary Health Care Centre</li> <li>▪ Ilogbo Central Hospital</li> <li>▪ Nigerian Navy Hospital, Ojo</li> <li>▪ Irede Public Health Centre</li> <li>▪ Lagos State Public Health Centre Agbel</li> <li>▪ Isashi Primary Health Centre</li> </ul>	230	30
7	Ikorodu	<ul style="list-style-type: none"> <li>▪ General Hospital Ikorodu</li> <li>▪ Agbowo General Hospital</li> <li>▪ Ikorodu Local Government Primary Health Care Centre</li> <li>▪ Lagos State Primary Health Care Centre, Odonla Ikorodu, Lagos</li> </ul>	220	29
8	Surulere	<ul style="list-style-type: none"> <li>▪ General Hospital Surulere</li> <li>▪ Lagos University Teaching Hospital</li> </ul>	245	32
9	Agege	<ul style="list-style-type: none"> <li>▪ Orile Agege General Hospital</li> </ul>	70	9
10	Ifako-Ijaiye	<ul style="list-style-type: none"> <li>▪ Ifako Ijaiye General Hospital</li> <li>▪ Primary Health Centre - Agbado</li> </ul>	130	17
11	Shomolu	<ul style="list-style-type: none"> <li>▪ General Hospital, Shomolu</li> </ul>	95	12
12	Amuwo-Odofin:	<ul style="list-style-type: none"> <li>▪ Amuwo Odofin General Hospital;</li> </ul>	115	15
13	Lagos mainland	<ul style="list-style-type: none"> <li>▪ Mainland Hospital, Yaba, Lagos</li> </ul>	75	10
14	Ikeja	<ul style="list-style-type: none"> <li>▪ Ikeja General Hospital</li> </ul>	60	8
15	Eti-Osa	<ul style="list-style-type: none"> <li>▪ Island General Hospital Eti-Osa,</li> </ul>	70	9

to be continued...

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		Lagos		
16	Badagry	▪ Badagry General Hospital	95	12
17	Apapa	▪ General Hospital, Apapa	105	14
18	Lagos island	▪ Lagos Island General Hospital	80	10
19	Epe	▪ Epe General Hospital	75	10
20	Ibeju-Lekki	▪ Ibeju Lekki General Hospital, Akodo	89	12
<b>N = (2,687,)</b> , <b>n = (348)</b>			<b>348</b>	

#### 4.4 INSTRUMENTATION AND DATA COLLECTION

According to Krosnick and Presser (2010), a questionnaire is a set of questions or items generated in relation to a specific theory related to the purpose and questions a study is trying to raise and answer. Also, the respondents are required to answer either by choosing from the different options provided or put their responses in writing (Krosnick & Presser 2010). Also, Johnson and Christensen (2000) state that a questionnaire is an instrument for collecting data that each respondent of a study fills out as part of the study. The questionnaire used for the present study is closed-ended, which is otherwise called a structured questionnaire. This questionnaire consists of questions and options for likely answers (Van Dalen 1979). The researcher chose this method because a closed-ended questionnaire enables the respondent to be guided on the primary purpose of the study to ensure secure data analysis (Van Dalen 1979). Also, this study used different anchors because this study has questions that ask about perception. Previous studies have commonly used different anchors in measuring variables (Ababneh 2015; Kim et al. 2009).

The questionnaires for this study were adapted from the existing body of literature because of the time and expense constraints associated with producing new questionnaires. This study maintains the English version of the questionnaires initially developed by previous researchers. This is because the population used in this study were competent in English to respond to questionnaires prepared in English, so there was no need to translate into any other language. Also, English is the official language of the study setting. The questionnaire was divided into two sections: the first comprises demographic information such as age and academic level. The second section discusses the research variables; the questionnaire contains 87 items.

Employee engagement was measured with a version of the Utrecht Work Engagement Scale (UWES)-17 items developed initially by Schaufeli et al. (2006). The items measured three main dimensions of employee engagement; Vigour, Dedication Absorption. The respondents indicated their response on a 5-point Likert scale, ranging from (1) 'Never' to (5) 'Always'. Example of item: *At my work, I feel as if I am bursting with energy* (Vigour). *I find the work that I do to be full of meaning and purpose* (Dedication). *When I am working, I forget everything else that is around me* (Absorption). In this study, the scale reported good reliability = 0.83.

Autotelic personality was measured with Tse et al. (2018) autotelic personality scale. The scale contains 26 items. Example of item: e.g. *I care more about enjoyment of a task than rewards associated with it*. All items will be rated on a 5-point Likert scale ranging from (1) 'Strongly Disagree' and (5) 'strongly Agree'. In this study the reliability with Coefficient Alpha values = 0.85.

Proactive personality was measured with the short version of Bateman and Crant's (1993) proactive personality scale. The scale contains 17 items (e.g. *I look for better ways to do things*). The respondents indicated responses on a 5- point Likert scale, ranging from (1) 'Strongly Disagree' to (5) 'Strongly Agree'. In this study, the scale reported good reliability with Coefficient Alpha values =0. 85.

The positive affectivity variable was measured using items from Positive Affectivity and Negative Affectivity Schedule (Watson et al. 1988). The scale contains 10 items (e.g. *To what extent do you generally feel inspired*). The respondents indicated their response on a 5-point Likert scale, ranging from (1) 'very slightly' to (5) 'extremely'. In this study, the scale reported good reliability with Coefficient Alpha values = 0.89.

Employee resilience was measured using the Employee Resilience Scale (EmpRes) developed by Näswall et al. (2015). The Employee Resilience Scale has nine items on a 5-point Likert scale from (1) 'Never' to (5) 'Always'. For example, "*I effectively collaborate with others to handle challenges at work*" and "*I learn from*

mistakes at work and improve the way I do my job”, where higher scores reflect higher employee resilience ( $\alpha = 0.83$ ).

Lastly, social support was measured via an eight item of perceived organizational support scale developed by Eisenberger et al. (1986). Organizational support scale was modified by replacing the word “organization” with “supervisor”. This has been done in many other studies (Eisenberger et al. 2002; Maertz et al. 2007). Example in which respondents was asked: “*My supervisor talks me through work-related problems, helping me come up with solutions*”. The respondents indicated their response on a 5-point Likert scale from (1) ‘Never’ to (5) ‘Always’. The Coefficient Alpha values is 0.94.

#### **4.4.1 Data collection procedure**

A letter was collected from UKM-GSB to verify that the researcher is a student at the university, and cooperation from the hospital management is highly appreciated. The Letter was presented to the chief nursing officers of each hospital with the help of experienced research assistants. The views of the chief of nursing officers are quite crucial because their permission was needed before anything could be done within the health facilities premises. At each selected health facility, the research assistants explained the subject matter of this study to the nurse in charge of the ward administrative staff. This is because their cooperation was needed in distributing the questionnaires to the nurses in their ward. Hence, the recruitment of research assistants is needed because a large number of hospitals are to be covered. Since these assistants have experience in data collection, little training was given to them on the research methodology and data collection procedure before the commencement of the research. Nurses of each health facility were given at least a month to complete the administered questionnaires. This gave them more time to attend to the questionnaires properly. During this process, the research assistances called each administrative staff for updates and feedback. Finally, all responses were entered into the printed questionnaires. That is, the data recording is paper-based.

#### 4.4.2 Ethical consideration

Before commencing the study, ethical approval and permission were granted by the authority of the National Administrative Structure in Nigeria (NASN). This gave the researcher permission to conduct research in the hospitals. Also, oral permission was obtained from the hospital's management, which was needed for this study before the commencement of the research on the premises. Informed consent was sought from the participants who were aware that the study was purely an academic exercise and that their confidentiality was assured. They were assured that it was not related to internal employee appraisal or evaluation processes. Also, participants were informed that their participation is voluntary and are free to withdraw at any time.

#### 4.4.3 Data screening

According to Pallant (2007), it is appropriate to screen data to clean and ready the data before the statistical analyses. This process will enable the screening of wrong information, which can completely alter and disfigure the analyses (Pallant 2007). Therefore, the data collected from this study is imputed into the SPSS program and screened in preparation for future analysis.

This study used descriptive statistics to look for missing data by tracing their pattern data before deciding how to treat them. Also, the study excluded cases pairwise to fix the missing data. According to Pallant (2007), excluding the case (participant) will only be needed if the data is missing for that particular analysis but would still be used in any other analysis. Also, this study used Kolmogorov statistics to assess the normality of the data. According to Pallant (2007), if the  $p$ -value is less than 0.05, the data violate the assumption of normality.

Furthermore, checking for outliers was carried out in this study as part of data screening. According to Creswell (2010), outliers are cases with an abnormal combination of characteristics seen as conspicuously different from the other cases. Tabachnick and Fidell (2007) stated that treating outliers required using multiple regression and Mahalanobis distance. A number of independent variables (IVs) are identified in this method, and the critical value of the chi-square critical is obtained

based on the number of IVs at an alpha level of .001 (Tabachnick & Fidell 2007). Therefore, to identify the outliers, the Mahalanobis distance column is ticked across the maximum column (Pallant 2007). Meanwhile, any case greater than the critical value in the statistic column of the outlier table is an outlier (Tabachnick & Fidell 2007).

#### 4.4.4 Pilot study

The pilot study is a preliminary investigation for a PhD thesis on the role of social support in mediating the relationship between selected trait engagement and resilience on employee engagement. The primary objective of the pilot study is to assess multiple dimensions, including temporal constraints, viability, financial implications, and the appropriateness of research instruments. A total of 45 respondents from public hospitals in Lagos were chosen for the test, consisting of 20 males and 25 females' nurses. The current sample size is smaller than the projected sample size for the comprehensive study. The primary objective of the pilot study is to validate the comprehensibility, ease of use, and suitability of the research tools, such as the questionnaire and evaluate the internal coherence of the items in the questionnaires (Gliem & Gliem 2003). A reliability test is included to ensure the consistency and accuracy of the research equipment. Table 4.3 shows that 90% of the dispersed questionnaires were successfully recovered and deemed suitable for the study.

The study emphasizes the voluntary nature of participation, allowing individuals to resign at any point without any diminished advantages. The data collected will be used solely for educational purposes and treated with utmost confidentiality, ensuring participant anonymity in the final report. The pilot study plays a crucial role in enhancing research design and verifying the efficacy of research instruments before conducting a comprehensive investigation on the mediating influence of social support on targeted trait engagement and resilience in relation to employee engagement.

Table 4.3 Sample size of pilot study

Number of Questionnaire Distributed	Number of responses get	Participants	% of response
50	45	50	90%

#### 4.4.5 Reliability test and instrument

According to Trochim (2001) the reliability coefficient is a metric that quantifies the level of measurement error linked to an examination grade. Cronbach's alpha is a widely employed statistical metric in the field of reliability testing, which assesses the internal consistency of items inside surveys. The aforementioned coefficient serves as an indicator of the degree of interrelatedness and consistency among survey items (Devon et al. 2007; Trochim 2001). The fundamental objective of reliability assessments is to analyse the general consistency of questionnaires employed in the collection of primary data from participants. The reliability coefficient is a statistical metric that quantifies the extent of accuracy and consistency in examination scores. Reliability coefficients generally fall within the range of 0.00 to 1.00 (refer to Table 4.4), where larger values indicate higher levels of reliability (George & Mallery 2003). The process of reliability transformation is dependent on a multitude of factors:

Table 4.4 The range of Cronbach's Alpha Reliability Coefficients

Number	Cronbach's Alpha Coefficient	Reliability level
1	0.9	Indicates commendable internal consistency
2	0.8 to 0.89	Indicates satisfactory internal consistency, but not outstanding
3	0.7 to 0.79	Is acceptable, indicating reasonable internal consistency
4	0.6 to 0.69	Indicates a certain level of internal consistency, but not strong enough for measuring
5	0.5 to 0.59	Indicates poor reliability, raising concerns about the assessment's dependability
6	0.59	indicates significant internal consistency, indicating untrustworthy measurement

Source: George and Mallert 2003

#### 4.4.6 Results of the pilot test

The findings of the pilot test indicate that all variables evaluated exhibit satisfactory reliability, suggesting a robust internal consistency among the items within each scale. The Cronbach's Alpha coefficient of 0.898 indicates a high level of reliability, and it signifies that the items evaluating positive affectivity personality traits have significant internal consistency. The Cronbach's Alpha coefficient for the employee resilience

scale is 0.863, indicating a high level of internal consistency in measuring components related to resilience. The Cronbach's Alpha coefficient of 0.879 indicates a high level of internal consistency among the items evaluating proactive personality traits, suggesting that the proactive personality scale exhibits good dependability. The Cronbach's Alpha coefficient for the autotelic personality scale is the lowest among the variables examined, with a value of 0.817. However, it still exhibits adequate reliability, indicating sufficient internal consistency across the items used to measure autotelic personality traits. The Cronbach's Alpha coefficient of 0.898 demonstrates a high level of reliability for the employee engagement scale, suggesting a robust internal consistency among the items used to assess employee engagement. The dependability of the social support scale is demonstrated by a Cronbach's Alpha coefficient of 0.886, indicating a high level of consistency in measuring social support variables. In summary, the findings from the pilot test indicate that the variables examined exhibit satisfactory reliability, implying robust internal consistency among the items within each scale.

Table 4.5 Reliability Coefficient of Cronbach's Alpha

	Number of Items	Cronbach's Alpha	N of response	Interpretation
Positive Affectivity Personality	10	0.898	45	Good
Employee resilience	9	0.863	45	Good
Proactive personality	17	0.879	45	Good
Autotelic personality	26	0.817	45	Good
Employee Engagement	17	0.898	45	Good
Social support	8	0.886	45	Good

#### 4.4.7 The data analysis procedure

The procedures for data analysis are the step-by-step methods and explanations of the type of analysis used in the present research. Firstly, descriptive statistics was used in analysing the collected data in order to state and describe the characteristics of the participants, checks the data and the variables in case of any violation of assumption (Pallant 2007). Also, it was used to calculate the frequency distribution and percentage

analyses of this study. The data collected was analysed using manual and electronic version 22 of SPSS. This study examined the Exploratory Factor Analysis (EFA). The exploratory factor analysis was used to check if latent indicators are well grouped into variables (i.e., factor structure) based on strong correlations. Also, contingency analysis was to determine the association between age group and years of service using the dichotomizing approach.

The Confirmatory Factor Analysis (CFA) was utilised to investigate the convergence, discriminant validity, reliability, and validity of the scales with AMOS version 27, which is the validity of this study. This step is a requirement for estimating full-fledged structural equation modelling (Kline 2011). A discriminant validity test was conducted to establish that the latent variables are perceived differently (Hamid et al. 2017; Henseler et al. 2015). One of the traditional approaches for establishing discriminant validity is comparing the Maximum Shared Variance (MSV) with the Average Variance Extracted (AVE) for a pair of two latent variables. AVE estimate should be greater than 0.5 (Malhotra & Dash 2016). The reliability and validity test plugin in AMOS version 27, composite reliability (CR), was estimated for all six latent variables, and the results are presented. The third analysis tested the thirteen hypotheses using the regression analysis, while multiple regression analysis was used to test the significance at  $\alpha=0.05$  or  $CR>1.96$ .

#### **4.4.8 Structural Equation Modeling analyses**

Structural equation modelling was selected because this study intends to facilitate the discovery and examine the significant relationships among the several variables in the model. Also, Hair et al. (2010) stated that SEM is a more appropriate tool for theory testing. Therefore, SEM was used in this study because this tested the theoretical propositions regarding the constructs and the theoretically linked among the constructs. Furthermore, previous studies stated that SEM is an appropriate approach in testing the mediating hypotheses (James et al. 2006; Salanova & Schaufeli 2008). Thus, SEM was used since this study tested the mediating hypothesis. According to Hair et al. (2010), the first step in evaluating SEM is to estimate the Goodness of Fits (GOF), such as parsimonious measure, absolute measure and incremental measure.

The absolute fit indices state how the priori model fits in the sample data (Hooper et al. 2009). It also shows which proposed model has the most superior fit. These fit indices include root mean square error of approximation (RMSEA), Chi-square ( $\chi^2$ ), GFI and Standardized Root Mean Square Residual (SRMR). However, Chi-square ( $\chi^2$ ) is used to estimate this quality, of which the smaller the Chi-square, the better the model fit. Also, the chi-square should be supported by the  $p > 0.5$ , which will show that the model fits with the estimated covariance. In the case of a sample that is larger, the normed chi-square is utilised, which is calculated by  $\chi^2/df < \text{three}$ , which is seen as an accepted model. Furthermore, Goodness-of-Fit Index (GFI) was provided as an alternative fit to correct the limitation of the Chi-Square GOF statistic.

However, the index is still limited because it is sensitive to larger sample sizes and data distribution. The value for this index ranges from 0 (poor fit) to 1 (perfect fit); this is considered a good fit when it is greater than 90. Furthermore, RMSEA is one of the most broadly utilised GOF that endeavours to correct the limitation of  $\chi^2$  GOF in the area of large samples and variables. This is because it is less sensitive to sample size. As such, RMSEA is the most suitable GOF to use in confirmatory or evaluating models when dealing with a larger sample size (Hair et al. 2010). For example, a sample size of more than five hundred respondents. The values for this index range between .05 and .08, which are considered acceptable for model fit. Also, SRMR is known as badness-of-fit measures where larger values indicate poor fit, while low values indicate good fit (Hair et al. 2010). However, like the rest absolute fit indices, SRMR will be reduced when the model has high parameters (Hooper et al. 2008). This value range from 0 to 1.0, which shows a well-fitting model (Byrne 2010).

Conversely, the incremental measure is used to compare a proposed model's fit to a null model or nested baseline (Hoe 2008). Incremental measure includes Normed Fit Index (NFI), Adjusted Goodness-of-Fit Index (AGFI) and Comparative Fit Index (CFI). CFI and NFI possess a value range from 0 to 1, with a value higher than .9 showing a good fit. On the other hand, the limitation of NFI is that it is sensitive to sample most, especially if the sample is less than 200 (Bentler 1990). However, CFI is vital fit indices to be employed because it performs well even when the sample size is small (Tabachnick & Fidell 2007). The acceptable model fit for comparative fit is a

minimum value of 0.90, which is considered to represent a good fit (Byrne 2009; Hair et al. 1998).

According to Hair et al. (2010), there is no way a particular fit index can suit different models with different sample sizes and the latent construct. In line with this statement, this study examined multiple indices of the model. The multiple indices used in this study are categorised into; the model chi-square, RMSEA, SRMR and CFI. All these thresholds are based on Kline (2011) and Hair et al. (2010). The information given can be viewed in the Table 4.6 below:

Table 4.6 Fit indices summary

Fit Indexes	Cut-off Points
$\chi^2$	Smaller the better or the one in the model must be below the one in the table
p	> 0.5
CFI/TLI	> .90 above
RMSEA	< .05 to .08
$\chi^2/df$	<3 to <5

Source: Kline 2011 and Hair et al. 2010

#### 4.4.9 Data analysis matrix

The data analysis matrix is the sketch and form of input structure based on the statistical process for survey analysis is operated (Sadera 2001). It is the outline of the research questions, the sources of the data and the equivalent analysis for the data. The outline of the data analysis matrix for the current study is stated in Table 4.7 below:

Table 4.7 Data analysis matrix

	Research Hypotheses	Data Sources	Analysis
IV (1) -DV	H1: Autotelic personality is positively related to employee engagement	Questionnaire Survey	Structural Equation Modeling (AMOS)
IV-MV	H2: Autotelic personality is positively related to social support	Questionnaire Survey	Structural Equation Modeling (AMOS)
MV (1)	H3 Social support will mediate the relationship between autotelic personality and employee engagement	Questionnaire Survey	Structural Equation Modeling (AMOS)

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IV (2) -DV	H4: Positive affectivity personality is positively related to employee engagement	Questionnaire Survey	Structural Equation Modeling (AMOS)
IV- SS	H5; positive affectivity personality is positively related to social support	Questionnaire Survey	Structural Equation Modeling (AMOS)
MV (2)	H6: Social supports will mediate the relationship between positive affectivity and employee engagement	Questionnaire Survey	Structural equation modelling (AMOS)
MI (3) -DV	H7: Proactive personality is positively related to employee engagement	Questionnaire Survey	Structural Equation Modeling (AMOS)
MV-SS	H8: Proactive personality is positively related to social- support	Questionnaire Survey	Structural Equation Modeling (AMOS)
MV (3)	H9: Social support will mediate the relationship between proactive personality and employee engagement.	Questionnaire Survey	Structural Equation Modeling (AMOS)
IV (4) -DV	H10: Employee resilience is positively related to employee engagement	Questionnaire Survey	Structural Equation Modeling (AMOS)
IV – MV	H11; employee resilience is positively related to social support	Questionnaire Survey	Structural Equation Modeling (AMOS)
MV-DV	H12: Social supports are positively related to employee engagement	Questionnaire Survey	Structural Equation Modeling (AMOS)
MV (4)	H7: Social support will mediate the relationship between employee resilience and employee engagement	Questionnaire Survey	Structural Equation Modeling (AMOS)

#### 4.5 CONCLUSION

This chapter focused on explaining the procedures and methodology followed in the study; it highlighted the kind of design used in the research. It states how the population is generated, the sample extracted, and the procedure used for sampling in the study. Also, this chapter mentions the instrumentation of the designs, highlighted the data sources and the data collection procedures.

## CHAPTER V

### RESULTS AND DISCUSSION

#### 5.1 INTRODUCTION

This chapter presents the results and findings from the cross-sectional survey on professional nurses working in selected tertiary hospitals. In line with the aim of this study, the results focus on how professional nurses' personalities (i.e., autotelic, positive affectivity personality, and proactive) and employee resilience affect their engagement at work as mediated by social support received from supervisors. The relationships are presented in Figure 5.1

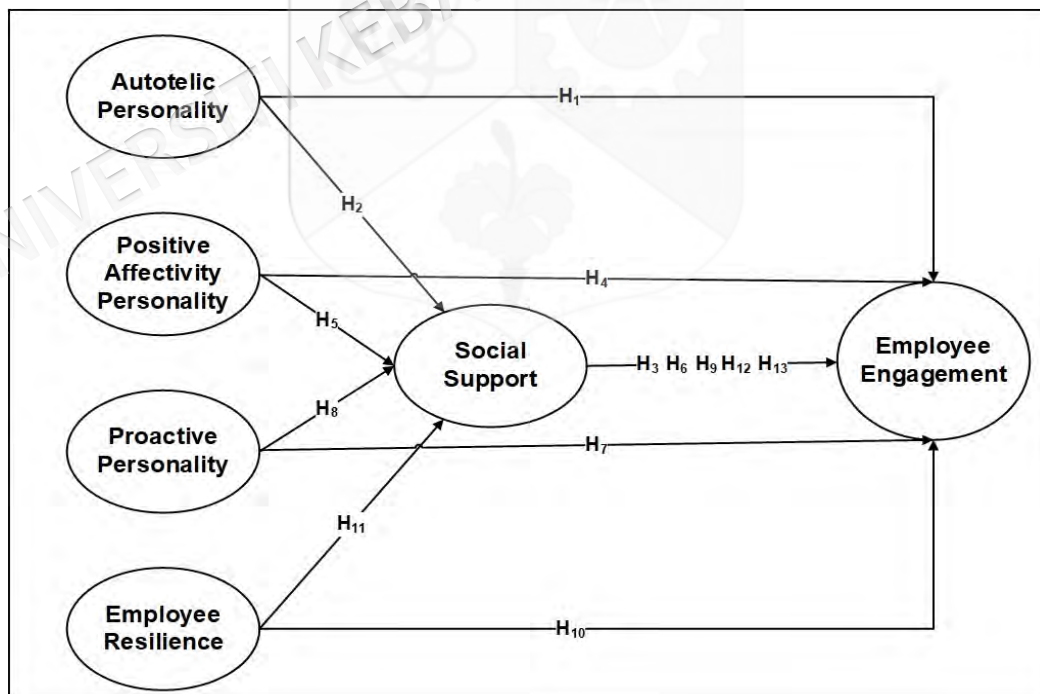


Figure 5.1 Conceptual model

## **5.2 DATA PRESENTATION AND SAMPLE CHARACTERISTICS**

### **5.2.1 Data collection procedure**

Data was collected via a self-administered questionnaire. Upon personal contact with the nurses and obtaining their consent, a copy of the questionnaire was given to each participant to complete at a time most convenient for them. On appointments, completed questionnaires were retrieved. Out of the targeted sample of 348 registered professional nurses, the survey retrieved 289 completed questionnaires yielding an 83.05% response rate. From the 289 completed questionnaires, out of 87 items across six latent variables, 23 cases were excluded from the survey because they had more than 10% missing value. The number of cases left was 266 respondents. Some other cases with less than 10 per cent missing values were retained after replacing them with-mean values.

### **5.2.2 Data exploration**

After the initial data cleaning, data from the remaining 266 respondents were thoroughly examined for engagement. Typically, with the self-administered cross-sectional survey, there is a possibility that some participants may not engage well in the survey. This happens when participants click options at random. To check for unengaged responses, the standard deviation method was used (Gaskin & Lim 2016). Any standard deviation equal to or close to 0.5 may indicate that respondents did not completely participate in the survey and should be excluded from the dataset. Five cases were excluded from the data, bringing the sample size to 261. Cook's distance calculations were utilised to generate a scatter graph in order to identify possible outliers (see Figure 5.2). One case was removed it displayed an outlier tendency. Following data exploration, a final viable sample size of 260 registered professional nurses was used for subsequent data analyses.

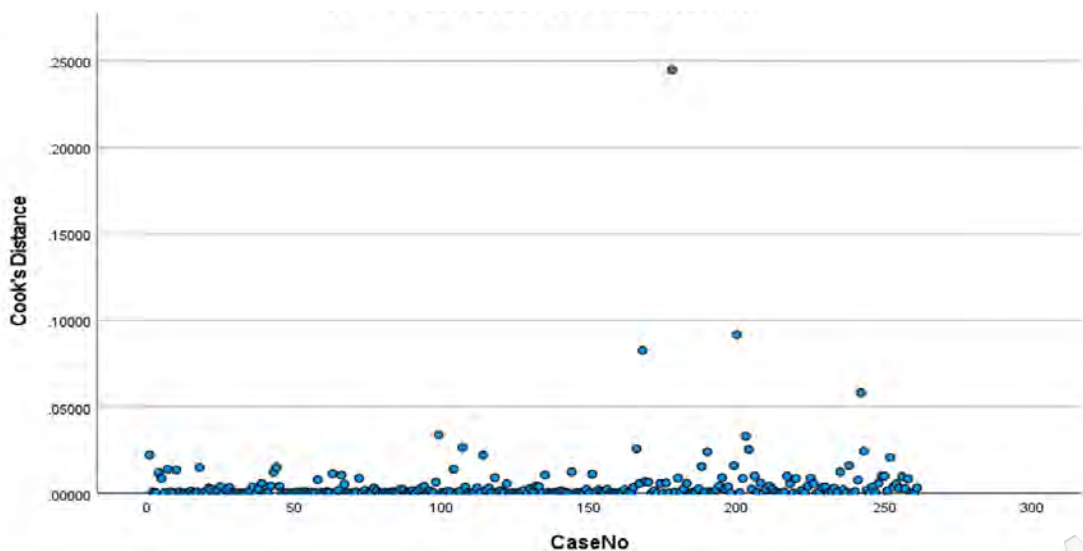


Figure 5.2 Scatter plot of Cook's Distance

### 5.2.3 Demographic characteristics of the participants

The demographic characteristics of nurses who participated in the study are summarised in Table 5.1. The table shows that majority of the practising registered nurses were females ( $n = 212$ , 81.5%); while only a small proportion ( $n = 48$ , 18.5%) were males. This implies that for every male nurse, there are more than 4 female nurses. Most of the sampled nurses are young with more than 74 per cent of them falling between the age range of 18 and 44 years. About 40 per cent of the registered nurses are in the junior ranks (i.e., Nursing II,  $n = 69$ , 26.5%; or Nursing I,  $n = 34$ , 13.1%). Another 37 per cent of the participants are in the middle level of their nursing career (i.e., Senior Nursing Officer,  $n = 41$ , 15.8%; Matron/Principal Nursing Officer,  $n = 29$ , 11.2%; or Senior Matron/Assistant Chief Nursing Officer,  $n = 26$ , 10.0%). Only 23.4 per cent of the registered nurses are at the top level of their career (i.e., Chief Matron II/Chief Nursing Officer,  $n = 37$ , 14.2%, or Deputy Nursing Superintendent,  $n = 24$ , 9.2%). As expected, the highest proportion of the nurses are at the lowest rank of Nursing Officer II ( $n = 69$ , 26.5%); and the lowest proportion of the nurses are at the highest rank of Deputy Nursing Superintendent ( $n = 24$ , 9.2%). This reflects the normal distribution of nurses found along the hierarchy of work in public hospitals in Nigeria, which is aligned with the statistics from the Healthcare Facilities Monitoring and Accreditation Agency (HFMA) and The National Association of Nigeria Nurses and Midwives (NANNM).

Furthermore, socio-demographic characteristics of the sample as presented in Table 5.1, also indicate that the registered nurses with a qualification from colleges of nursing/midwifery are 29 per cent, those with a qualification of bachelor's degree in Nursing are 55.8 per cent, while the other 15 per cent have postgraduate qualifications such as a master's degree (n = 30, 11.5%); and PhD (n = 9, 3.5%). In terms of years of service, the majority of nurses (n = 208, 80.0%) have fewer than 20 years of experience, while just 20% have 20 years or more of experience (n = 52).

Table 5.1 Sociodemographic characteristics of the participants

Variable	Frequencies	Percentage	Cumulative %
Number of respondents (n)	260	100%	
<i>Gender</i>			
▪ Male	48	18.5%	18.5%
▪ Female	212	81.5%	100.0%
<i>Age bracket (years)</i>			
15 - 24 years	34	13.1%	13.1%
▪ 25 - 34 years	82	31.5%	44.6%
▪ 35 - 44 years	77	29.6%	74.2%
▪ 45 - 54 years	48	18.5%	92.7%
▪ 55 years or above	19	7.3%	100.0%
<i>Rank</i>			
▪ Nursing officer II	69	26.5%	26.5%
▪ Nursing Officer I	34	13.1%	39.6%
▪ Senior Nursing Officer	41	15.8%	55.4%
▪ Matron/Principal Nursing Officer	29	11.2%	66.6%
▪ Senior Matron/Assistant Chief Nursing Officer	26	10.0%	76.6%
▪ Chief Matron II/Chief Nursing Officer	37	14.2%	90.8%
▪ Deputy Nursing Superintendent	24	9.2%	100.0%
<i>Education (Highest Education)</i>			
▪ College of Nursing/Midwifery	76	29.2%	29.2%
▪ First degree (BNSc.)	145	55.8%	85.0%
▪ Masters' Degree (MSc.)	30	11.5%	96.5%
▪ PhD	9	3.5%	100.0%
<i>Years of service</i>			
▪ < 5 years	84	32.3%	32.3%

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▪ 5 - 9 years	53	20.4%	52.7%
▪ 10 - 14 years	45	17.3%	70.0%
▪ 15 - 19 years	26	10.0%	80.0%
▪ 20 - 24 years	32	12.3%	92.3%
▪ >24 years	20	7.7%	100.0%

In Table 5. 2, a contingency analysis was conducted. Its purpose is to determine the association between age group and years of service using the dichotomizing approach. The dichotomizing approach involves converting continuous data or variables into two categories (Baneshi & Talei 2011; Rucker et al. 2015). Results further confirm that more young nurses aged between 15 – 44 years ( $n = 186$  out of 193, representing 96.4%) have less than 20 years of service (or work experience). On the other hand, more of the older nurses aged 45 years and above ( $n = 45$  out of 67, representing 67.2%) have more than 20 years of service (or work experience).

Table 5.2 Crosstabulation between age group and years of service

Age group	Years of service		Total
	< 20 years	≥ 20 years	
15 - 24 years	34	0	34
25 - 34 years	82	0	82
35 - 44 years	70	7	77
45 - 54 years	19	29	48
55 years or above	3	16	19
<b>Total</b>	<b>208</b>	<b>52</b>	<b>260</b>

The symmetrical associations between age range and service years were tested using Phi, Cramer's V and Contingency Coefficient and the results are presented in Table 5.3. The estimates  $\Phi = 0.7140$ , Cramer's  $V = 0.7140$ , and Contingency Coefficient = 0.5810 were all statistically significant at a p-value less than 0.001.

Table 5.3 Significance test of symmetrical association

Symmetric measure	Estimate	P value
Phi	0.7140	0.000
Cramer's V	0.7140	0.000
Contingency Coefficient	0.5810	0.000

#### 5.2.4 Descriptive statistics

The descriptive and correlation statistics relating to the six variables are given in Table 5.4 and Table 5.5, respectively. Descriptive statistics describe the features of a the data set by giving short summaries about the sample and measures of the datas. A Descriptive statistics analysis was conducted to checks the data and the variables in case of any violation of assumption. Also, to calculate the frequency distribution and percentage analyses of this study. From Table 5.4, social support has the lowest mean score at 3.783 (standard deviation= 0.783), while autotelic personality has the highest mean at 4.098 (standard deviation=0.746).

Table 5.4 Descriptive statistics of study variables

Variables	Min	Max	Mean	Std. Deviation
Positive Affectivity Personality (PS)	1.000	5.000	3.794	0.789
Employee Resilience (R)	1.000	5.000	4.037	0.866
Proactive Personality (P)	1.000	5.000	4.081	0.779
Autotelic Personality (A)	1.000	5.000	4.098	0.746
Employee Engagement (Ee)	1.000	5.000	3.812	0.835
Social Support (S)	1.000	5.000	3.783	0.783

Furthermore, Correlation coefficient is used in to measure the strength and relationship between the variables. All constructs were correlated as shown in the results of a 2-tailed bivariate correlation analysis. Results (see Table 5.5) shows that all correlation coefficients were statistically significant at  $\alpha=0.01$ .

Table 5.5 Correlation coefficients of study variables

Variable	PS	R	P	A	Ee	S
Positive Affectivity Personality (PS)	1					
Employee Resilience (R)	.322**	1				
Proactive Personality (P)	.445**	.397**	1			
Autotelic Personality (A)	.491**	.363**	.520**	1		
Employee Engagement (Ee)	.241**	.273**	.404**	.238**	1	
Social Support (S)	.219**	.359**	.170**	.236**	.241**	1

Note.  $p < 0.01$  level (2-tailed)

### 5.3 EXPLORATORY FACTOR ANALYSIS

After obtaining a clean dataset, the exploratory factor analysis (EFA) was conducted as the first step in analysing the data using the structural equation modelling approach (Gaskin 2021). The EFA ensures that the structural equation modelling utilises latent indicators that are well grouped into variables (i.e., factor structure) based on strong correlations. Therefore, exploratory factor analysis (EFA) was conducted to determine which indicators adequately explain variation in the six latent variables. The maximum likelihood approach was used to extract factors, and promax rotation was employed to optimise the model with Kappa set at 4. The maximum likelihood and Promax rotation methods were used because they give unbiased factor estimates while working with larger samples. In addition, Promax rotation allows for factors to be correlated, which is a required assumption for the analysis (Brown 2009).

To complete the EFA analysis, two other criteria were used. These criteria include: Eigen values larger than 1, and suppression of small coefficients was set at  $<0.3$ . From the EFA results, as shown in Appendix 1, a six-factor model was extracted with the sixth variable having eigenvalue = 1.158, which is greater than 1. The six factors explain 51.82 per cent of the total variance having seven per cent non-redundant residuals with absolute values greater than 0.05.

To complete the EFA analysis, two other criteria were used. These criteria include: Eigen values larger than 1, and suppression of small coefficients was set at  $<0.3$ . From the EFA results, as shown in Appendix C, a six-factor model was extracted with the sixth variable having eigenvalue = 1.158, which is greater than 1. The six factors explain 51.82 per cent of the total variance having seven per cent non-redundant residuals with absolute values greater than 0.05.

Sampling adequacy was measured using Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity. Factor analysis requires that the Kaiser-Meyer-Olkin measure of sampling adequacy be greater than 0.50 for the total set of variables (Faizah et al. 2017). The retained items were considered adequate based on the Kaiser-Meyer-Olkin measure of sampling adequacy of 0.872, which is higher than 0.5, and a statistically significant Bartlett sphericity test ( $p < 0.001$ ). While most extracted

communalities are above 0.6, only a few are below 0.5, which is still above the minimum suppression value of 0.3. For example, for autotelic personality, 3 items were extracted. For positive affectivity personality, 3 items were extracted. For proactive personality, 4 items were extracted. For employee resilience, 6 items were extracted. For social support, 3 items were extracted. While for employee engagement, 3 items were extracted (see Appendix C). These results are satisfactory and considered good and significant for the variables under study.

#### 5.4 VALIDITY AND RELIABILITY OF THE MODEL

Having extracted six variables from the EFA analysis, it was pertinent to re-confirm the validity of the dataset at the levels of construct, discriminant and convergent validity. Therefore, the Confirmatory Factor Analysis (CFA) was carried out to determine the construct, discriminant, and convergent validity of latent variables retained from the EFA stage. To establish construct, discriminant, and convergent validity and the factor loadings in the pattern matrix (see Appendix C) were copied into the pattern matrix builder plugin in AMOS version 27.

##### 5.4.1 Construct validity

As outlined in the literature, Relative Chi-Square ( $\chi^2/df$ ), Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), Standard Root Mean Residual (SRMR), and p of Close Fit PCLOSE are critical indices for ascertaining the fitness of a confirmatory or structural model (Abraham et al. 2019; Hooper et al 2009; Kumar & Upadhaya 2017). The fit indices are summarised in Table 5.6.

Table 5.6 Model fit indices cutoff criteria

Measure	Terrible	Acceptable	Excellent
CMIN/DF	> 5.000	> 3.000	> 1.000
CFI	<0.900	<0.950	>0.950
SRMR	>0.100	>0.080	<0.080
RMSEA	>0.080	>0.060	<0.060
PClose	<0.010	<0.050	>0.050

The CFA model was set up and tested. The extracted six latent variables, as shown in Figure 5.3, indicate good factor loadings and correlations. The CFA model shows all the variable indicators extracted at the EFA level except for three items removed from employee resilience (R) based on model fitness. The items removed are R5, R6 and R9. Based on the cut-off criteria, the CFA model indicated good construct validity. As shown in Table 5.7, the model fitness was obtained at  $CMIN/DF = 1.785$ ;  $CFI = 0.928$ ;  $RMSEA = 0.052$ ;  $SRMR = 0.055$ ; and  $PCLOSE = 0.184$ .



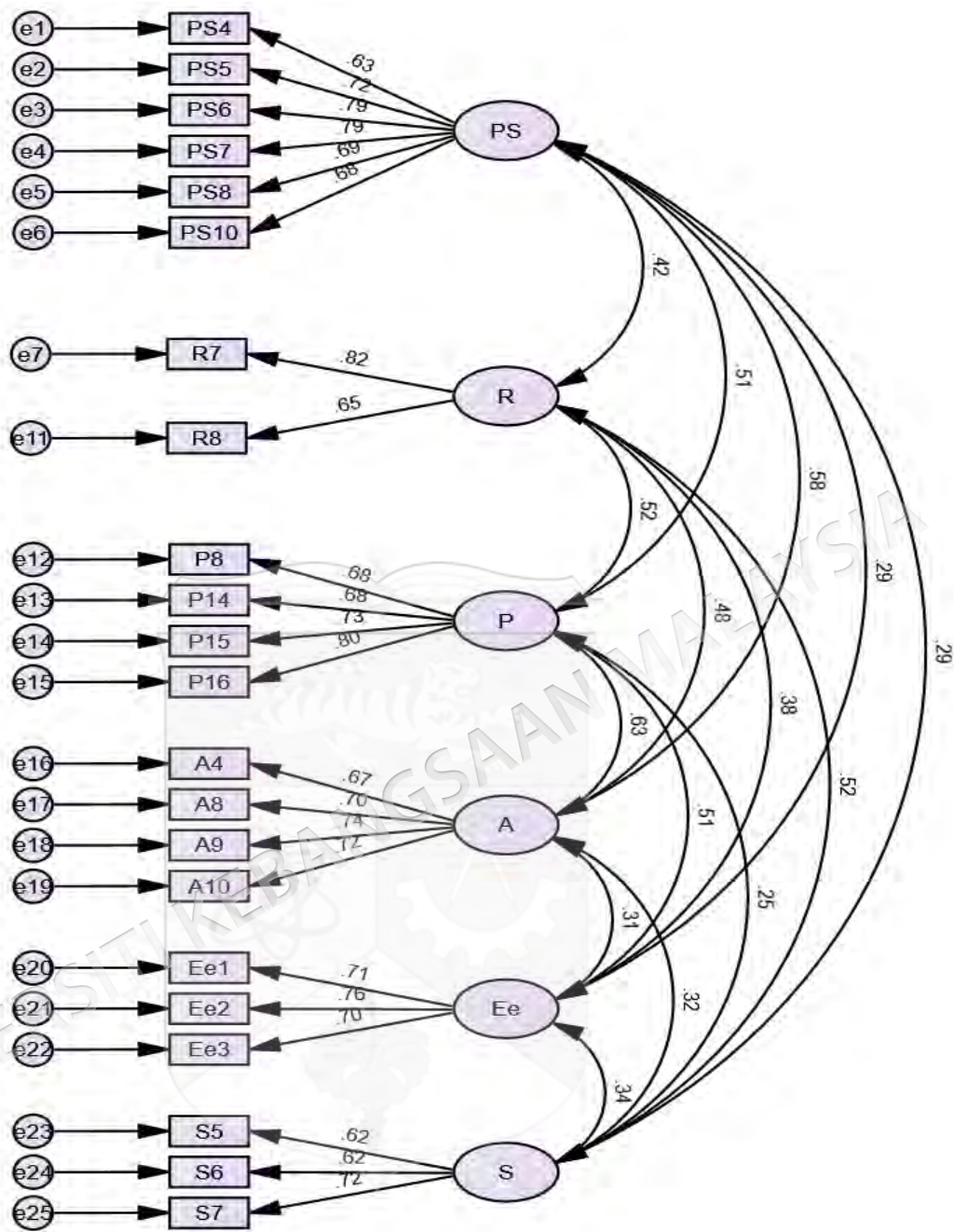


Figure 5.3 Confirmatory Factor Analysis Model

Note. PS=Positive Affectivity Personality; R=Employee Resilience; P=Proactive Personality; A= Autotelic Personality; Ee=Employee Engagement; S= Social Support

Table 5.7 Model fit indices for construct validity

Measure	Estimate	Threshold	Interpretation
Chi-Square [CMIN] ( $\chi^2$ )	346.272	--	--
DF	194	--	--
Relative-Chi-Square [CMIN/DF]	1.785	Between 1 and 3	Excellent
CFI	0.928	>0.95	Acceptable
SRMR	0.052	<0.08	Excellent
RMSEA	0.055	<0.06	Excellent
PCLOSE	0.184	>0.05	Excellent

#### 5.4.2 Discriminant validity

When dealing with latent variables, it is argued that a discriminant validity test must be conducted to establish that the latent variables are perceived differently from each other by the study participants. That is, a latent variable is not better explained by some other variables than by its observed variables. One of the traditional approaches for establishing discriminant validity is comparing the Maximum Shared Variance (MSV) with the Average Variance Extracted (AVE) for a pair of two latent variables. The criterion was that the MSV value must be less than the AVE value; otherwise, discriminant invalidity is said to exist. In other words, the variables reflect high similarities, and they are not different (Adejare et al. 2020). A more rigorous criterion for measuring discriminant validity is the Heterotrait-monotrait (HTMT) criterion (Ab Hamid et al. 2017; Henseler et al. 2015). The strict criterion is that if the HTMT value is greater than 0.85 ( $>HTMT0.85$ ), then there is no difference between the two constructs. From Table 5.8, it can be seen that all HTMT values between the constructs are below 0.85. Therefore, according to HTMT.85 criterion, discriminant validity has been established.

Table 5.8 HTMT result

	PS	R	P	A	Ee	S
PS						
R	0.412					
P	0.524	0.526				
A	0.592	0.486	0.641			

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Ee	0.298	0.374	0.509	0.303	
S	0.286	0.52	0.233	0.323	0.337

Note. PS=Positive Affectivity Personality; R=Employee Resilience; P=Proactive Personality; A= Autotelic Personality; Ee=Employee Engagement; S= Social Support

### 5.4.3 Convergent validity

Convergent validity is concerned with the contribution of a set of observed variables to the variance of a latent variable (Gaskin 2021a). To determine that a latent variable is well described by its observed variables, Malhotra and Dash (2016) argued that AVE is a better estimation of convergent validity. Typically, the AVE estimate ranges between 0 and 1. The criterion is that the AVE estimate should be greater than 0.5 indicating that less than 50 per cent of the variance should be due to error (Malhotra & Dash 2016). The results in Table 5.9 show that all AVE estimates are well above 0.5. Thus, the construct satisfies a good convergent validity criterion.

Table 5.9 Convergent validity analysis

Construct	AVE
Positive Affectivity Personality	0.584
Employee Resilience	0.710
Proactive Personality	0.579
Autotelic Personality	0.586
Employee Engagement	0.617
Social Support	0.829

### 5.4.4 Reliability

Using the reliability and validity test plugin in AMOS version 27, Composite Reliability (CR) was estimated for all six latent variables, and the results are presented in Table 5.9. With the criterion set at  $CR \geq 0.7$ , as suggested by Jaharuddin and Zainol (2019), all obtained CR scores confirm the reliability of all the latent variables. (refer to Table 5.10).

Table 5.10 Reliability analysis

Construct	Composite Reliability
Positive Affectivity Personality	0.893

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Employee resilience	0.829
Proactive personality	0.846
Autotelic personality	0.850
Employee Engagement	0.829
Social Support	0.935

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## 5.5 TEST OF MODEL ASSUMPTIONS AND FITNESS

In the structural equation model, some assumptions must be met. First, data measurability. According to Cain (2020), it is stipulated that variables can be measured either on the nominal, interval, ratio or ordinal level. Second is the causality assumption. While specifying the SEM, some variables (i.e., exogenous) are expected to be causing some other variables (i.e., endogenous). Third, the structural equation model is also underlined by the multivariate assumptions related to the association and normality of constructs.

### 5.5.1 Skewness and kurtosis

Normality of variables was estimated using skewness and kurtosis. A strict threshold for skewness and kurtosis estimates should range between +1 and -1. However, Sposito et al. (1983) recommended a more relaxed threshold at  $\pm 3.3$ . From the obtained estimates, there is a fairly normal distribution in the indicators of latent variables in terms of skewness and kurtosis, except for some latent variable indicators whose kurtosis and/or skewness values range from benign to about 3.22. The details of the skewness and kurtosis estimates with their standard deviations are given in Appendix D.

### 5.5.2 Outlier and influential

Outliers are the values that dilute the regression line, while influential are those observations that can potentially dilute the regression line (David 2014). As part of measuring the normality of the variables, Cook's distance analysis was performed in SPSS (version 27) to identify actual or potential outliers and influential. Given that a Cook's distance greater than 1 indicates outliers (Hair et al., 2010), the results reveal

that there were no true outliers or influential observations, with the highest Cook's distance being less than 0.25. However, Cook's distance of one participant that exhibited potential outlier behaviour was therefore removed.

### 5.5.3 Multicollinearity

Typically, at least two independent variables are considered in a structural equation model. When one or more independent variables can be predicted by the changes in some other independent variable with significant accuracy, the regression weights will be erratic, invalid and unable to expose redundancy in the multivariate regression model. To avoid this, it is expected that multicollinearity does not exist among the independent variables. Therefore, multicollinearity was examined via tolerance and Variable Inflation Factor (VIF). As indicated in Table 5.11, the least tolerance value obtained is 0.626, which is greater than the required threshold of 0.1, while the highest obtained VIF value of 1.596 is less than the threshold of 3.00 (Hanafiah 2020; Henseler et al. 2015). Having satisfied the foregoing criteria, it is evident that the level of multicollinearity is acceptable. The details of the multicollinearity test are given in Appendix E

Table 5.11 Regression coefficients with collinearity test

Model parameter	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Positive Affectivity Personality	0.695	1.438
Employee Resilience	0.731	1.368
Proactive Personality;	0.646	1.549
Autotelic Personality	0.626	1.596
Social Support	0.852	1.173

### 1.1.1 Model fit indices

To determine the direct and mediated effects as stated in the hypotheses, a structural equation model was developed and measured. The model is presented in Figure 5.4.

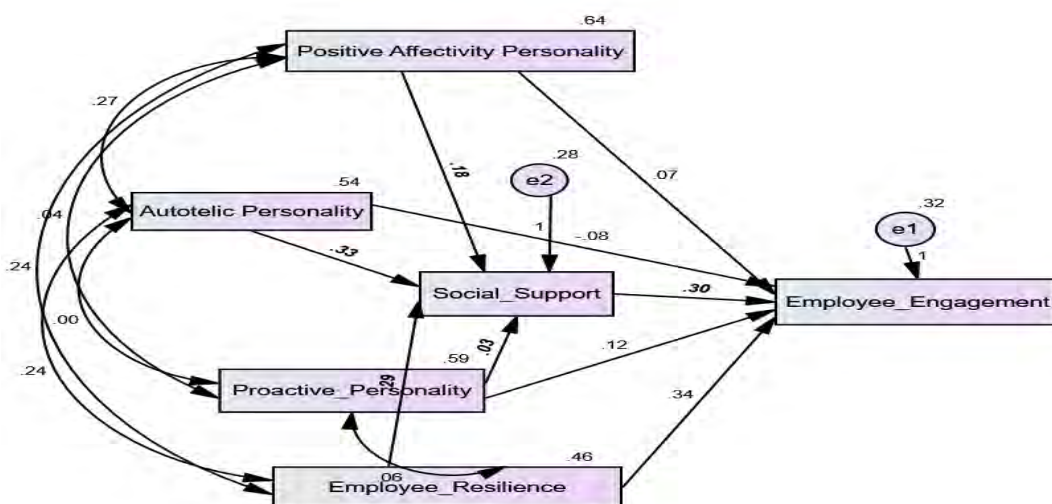


Figure 5.4 Structural Equation Model showing factor loadings and regression weights

The fitness of the structural model was tested, and fit statistics obtained are presented in Table 5.12. All confirm that the structural model fits the data and can be used for hypotheses testing.

Table 5.12 Fit indices for structural model

Measure	Estimate	Threshold	Interpretation
CMIN	0.000	--	--
DF	0	--	--
CMIN/DF	0	Between 1 and 3	Excellent
CFI	1	>0.95	Acceptable
NFI	1	>0.95	Excellent
TLI	1	>0.95	Acceptable

### 5.6 HYPOTHESES TESTING

AMOS 27 was used to satisfy the requirements for validity, reliability, and multivariate assumptions. This paved the way for structural equation modelling data analysis. The analysis was aimed at testing the 13 hypotheses, which are here re-stated under three groups, as shown in Table 5.13.

Table 5.13 Hypotheses testing

Hypotheses Grouping	Research Hypotheses
Direct effect between independent or mediating variables and the outcome variables	<ul style="list-style-type: none"> <li>▪ H1: Autotelic personality positively related to employee engagement</li> <li>▪ H4: Positive affectivity personality positively related to employee engagement</li> <li>▪ H7: Proactive personality positively related to social support employee engagement</li> <li>▪ H10: Employee resilience positively related to employee engagement</li> <li>▪ H13: Social support positively related to employee engagement</li> </ul>
Direct relationship between independent variables and Mediating variables	<ul style="list-style-type: none"> <li>▪ H2: Autotelic personality positively related to social support</li> <li>▪ H5: Positive affectivity personality positively related to social support</li> <li>▪ H8: Proactive personality positively related to social support</li> <li>▪ H11: Employee resilience positively related to social support</li> </ul>
Indirect effects: Measuring the mediating effects of social support between the independent and outcome variables	<ul style="list-style-type: none"> <li>▪ H3: Social support will mediate the relationship between autotelic personality and employee engagement</li> <li>▪ H6: Social supports will mediate the relationship between positive affective personality and employee engagement</li> <li>▪ H9: Social support will mediate the relationship between proactive personality and employee engagement.</li> <li>▪ H13: Social support will mediate the relationship between employee resilience and employee engagement</li> </ul>

### 5.6.1 Direct effects on employee engagement

As indicated under the category in Table 5.14, five hypotheses examined the direct effects of autotelic personality, positive affective personality, proactive personality, employee resilience and social support on employee engagement. The regression weights of these paths, as indicated in Figure 5.4, were estimated and subjected to a test of significance at  $\alpha=0.05$  or  $CR>1.96$ . The results are summarised in Table 5.14

Table 5.14 Standardised direct effect estimates on employee engagement

Hypothesized path	Std Estimate	P	Std. Error	Critical Ratio
Autotelic Personality (AP)--> Employee Engagement (Ee)	--0.075	0.219	0.061	-1.229
Positive Affective Personality(PS)-->Employee Engagement (Ee)	0.066	0.207	0.052	1.261
Proactive Personality (P) --> Employee Engagement (Ee)	0.122	0.008	0.046	2.646
Employee Resilience(R) --> Employee Engagement	0.335	0.001	0.065	5.151

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... continuation

(Ee)

Social Support (S) --> Employee Engagement (Ee)	0.299	0.001	0.066	4.527
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The hypothesised relationship between autotelic personality and employee engagement as hypothesized in H1 was insignificant ( $\beta = -0.075, p = 0.219, CR < 1.96$ ). The relationship between positive affective personality and employee engagement as hypothesized in H4 also was not significant ( $\beta = 0.066, p = 0.207, CR < 1.96$ ). While, the relationship between proactive personality and employee engagement as hypothesized in H7 was significant ( $\beta = 0.122, p < 0.008, CR > 1.96$ ). Also, the relationship between employee resilience and employee engagement as hypothesized in H10 was significant ( $\beta = 0.335, p = 0.001, CR < 1.96$ ). Furthermore, the relationship between social support and employee engagement as hypothesized in H13 was significant ( $\beta = 0.299, p = 0.001, CR > 1.96$ ).

Thus, the hypotheses (H1 and H2), which propose the relationship between the independent variables (autotelic personality and positive affective personality) on employee engagement were not supported. However, the relationship between proactive personality (H7), employee resilience (H10) and social support (H13) on employee engagement were supported.

The implication of the significant relationship between proactive personality and employee engagement is that proactive individuals are more likely to get engaged. That is, whenever proactive personality improves, engagement also improves; and whenever proactive personality dampens, then engagement also dampens. Also, the implication of the relationship between employee resilience and employee engagement is that that resilient individuals are more likely to get engaged. Similarly, the implication of the relationship between social support and employee engagement means that when social support is taken into account, it relates to employee engagement positively. That is, when social support improves, engagement also improves; and whenever social support dampens, then engagement also dampens.

### 5.6.2 Direct effects on social support

This study also determines the relationship between autotelic personality, positive affective personality, proactive personality and employee resilience on social support, as shown in Figure 5.4. The results are presented in Table 5.15. The standard regression weights were subjected to a test of statistical significance at  $\alpha=0.05$  or  $CR>1.96$ .

Table 5.15 Standardised direct effect estimates on social support

Hypothesized path	Std Estimate	P	Std. Error	Critical Ratio
H2: Autotelic Personality (A)→Social support (ss)	0.328	0.001	0.054	6.068
H5: Positive Affective Personality (PS→ Social support (ss)	0.181	0.001	0.048	3.078
H8: Proactive Personality (P)→ social support (ss)	0.003	0.484	0.043	0.007
H11: Employee Resilience (R)→ social support (ss)	0.291	0.001	0.058	4.975

\*\*\*  $p<0.00$

The relationship between autotelic personality and social support as hypothesized in H2 was significant ( $\beta = 0.328, p = 0.001, CR < 1.96$ ). The relationship between positive affective personality and social support as hypothesized in H5 was significant ( $\beta=0.181, p = 0.001, CR < 1.96$ ). The relationship between proactive personality and social support as hypothesized in H8 was not significant ( $\beta= -0.003, p = 0.484, CR < 1.96$ ). Also, the relationship between employee resilience and social support as hypothesized in H11 was statistically significant ( $\beta = 0. 0.291, p =0.001, CR > 1.96$ ).

Thus, the hypotheses (H2, H5 and H11), which propose the relationship between the independent variables (autotelic personality, positive affective personality, and employee resilience) on social support were supported. However, Hypothesis 8, which proposes the relationship between proactive personality and social support was not supported. This implies that there is a significant relationship between autotelic personality, positive affective personality, employee resilience and social support. That is, autotelic personality, positive affective personality, and employee resilience can

either be strengthened or dampened as a result of fluctuations in social support depending on the direction of change. Whenever autotelic personality, positive affective personality, and employee resilience improve, social support also improves; and whenever autotelic personality, positive affective personality, and employee resilience dampen, then social support also dampens.

### 5.6.3 Mediating effects of social support on employee engagement

Following the mediating role of social support in the model (Figure 5. 4) the researcher examined the indirect effects of social support on the relationships between the independent variables (i.e., autotelic personality, positive affective personality, proactive personality and employee resilience) and the dependent variable (i.e., employee engagement). Four mediations were examined via an indirect effect plugin in AMOS 27 (i.e., a product of all the direct effects running an independent variable and a dependent variable); and the results are presented in Table 5.16.

Table 5.16 Standardised estimates of mediated paths in the causal structural model

Hypothesized path	Standardized Estimate	Lower	Upper	P-Value
Autotelic Personality → Social support → Employee Engagement	0.098	-0.038	0.189	0.001
Positive Affective Personality → Social support → Employee Engagement	0.054	0.017	0.12	0.001
Proactive Personality → Social support → Employee Engagement	0.009	-0.018	0.056	0.52
Employee Resilience → Social support → Employee engagement	0.087*	0.022	0.196	0.002

The mediating role of social support on the relationship between autotelic personality and employee engagement as hypothesized in H3 was significant ( $\beta = 0.098$ ,  $p = 0.001$ , CI 95% (0.038, 0.189)). Similarly, the mediating role of social support on the relationship between positive affective personality and employee engagement as hypothesized in H6 was significant ( $\beta = 0.054$ ,  $p = 0.001$ , CI 95% (0.017, 0.12)). Also, the mediating role of social support on the relationship between proactive personality

and employee engagement as hypothesized in H9 was not significant ( $\beta = 0.009$ ,  $p = 0.52$ , CI 95% (-0.018, 0.056)). The mediating role of social support on the relationship between employee resilience and employee engagement as hypothesized in H13 was statistically significant ( $\beta = 0.087$ ,  $p = 0.002$ , CI 95% 0.022, 0.196).

The results showed that social support mediates the relationship between autotelic personality, positive affective personality and employee resilience and employee engagement. This means that autotelic personality, positive affective personality and employee resilience can either be strengthened or dampened as a result of the mediating effect of social support towards employee engagement.

Also, the results showed that social support did not mediate the relationship between proactive personality and employee engagement. The implication is that proactive personality can not be strengthened or dampened as a result of the mediating role of social support.

## 5.7 SUMMARY OF THE FINDINGS

The results of the hypotheses testing are summarised in Table 5.17. The direct effect of autotelic personality, positive affectivity, proactive personality, employee resilience and social support were tested on employee engagement; out of the five hypotheses tested in this category, proactive personality, employee resilience and social support were significantly related to employee engagement. Also, the relationship between autotelic personality, positive affectivity personality, proactive personality, employee resilience were tested on social support; out of the four hypotheses tested in this category, autotelic personality, positive affectivity personality and employee resilience were found to be significantly related to social support. Additionally, the outcome of testing the mediating effect of social support on autotelic personality, positive affectivity, proactive personality and employee resilience on employee engagement, out of the four hypotheses tested in this category, three were significant. That is, the relationship between autotelic personality, positive affectivity personality, employee resilience and employee engagement were fully mediated by social support.

Table 5.17 Summary of hypothesis testing

Hypothesis	Std Estimate	<i>p</i>	Remark
<i>H</i> <sub>1</sub> : Autotelic personality is positively related to employee engagement	-0.075	0.219	Not supported
<i>H</i> <sub>2</sub> : Autotelic personality is positively related to social support	0.328	0.001	Supported
<i>H</i> <sub>3</sub> : Social support mediate the relationship between autotelic personality and employee engagement	0.098	0.001	Supported
<i>H</i> <sub>4</sub> : Positive affective personality is positively related to employee engagement	0.066	0.207	Not supported
<i>H</i> <sub>5</sub> : Positive affective personality is positively related to social support	0.181	0.001	Supported
<i>H</i> <sub>6</sub> : Social supports mediate the relationship between positive affective personality and employee engagement	0.054	0.001	Supported
<i>H</i> <sub>7</sub> : Proactive personality is positively related to employee engagement	0.122	0.008	Supported
<i>H</i> <sub>8</sub> : Proactive personality is positively related to social-support	0.003	0.484	Not supported
<i>H</i> <sub>9</sub> : Social support will mediate the relationship between proactive personality and employee engagement	0.009	0.52	Not supported
<i>H</i> <sub>10</sub> : Employee resilience is positively related to employee engagement	0.335	0.001	Supported
<i>H</i> <sub>11</sub> : Employee resilience is positively related to social support	0.291	0.001	Supported
<i>H</i> <sub>12</sub> : Social support is positively related to employee engagement	0.299	0.001	Supported
<i>H</i> <sub>13</sub> : Social support will mediate the relationship between resilience on employee engagement	0.087	0.002	Supported

Note \*  $p < 0.05$ , \*\*\*  $p < 0.001$

## **CHAPTER VI**

### **DISCUSSIONS AND CONCLUSIONS**

#### **6.1 INTRODUCTION**

This chapter examines the research findings on the role of social support as a mediator between selected trait engagement and employee resilience on employee engagement. Also, the chapter discusses the study's theoretical and practical implications, limitations and recommendations for future research.

#### **6.2 DISCUSSION OF FINDINGS**

This section discusses the research findings and the implications of the findings as it relates to the literature review in chapter two. Although some of the findings of this study corroborate previous research work relating to the study, the chapter will focus on comparing and contrasting the findings of this research analysed from the 13 hypotheses tested with previous researchers' study.

##### **6.2.1 Autotelic personality and employee engagement**

The result of this study indicates that autotelic personality is not significantly related to employee engagement. As such, the result is inconsistent with the COR Theory (Hobfoll 1989), which states that individual personality are an essential predisposition of employees to be engaged at work. Also, this study is inconsistent with past studies that state that the higher the autotelic personality an employee possesses, the higher he or she will become more equipped to enjoy challenging activities that lead to employee engagement (Kanten & Arda 2021; Mikicin 2013; Young & Steelman 2017). This finding is inconsistent with the view that individual trait engagement, such as autotelic personality, may predispose individuals to be more engaged in their work (Kahn 1990;

Macey & Schneider 2008). This study's result implies that nurses' autotelic personality does not affect the level of their engagement in the hospital. An autotelic individual may be confident to set and achieve potential goals, but this does not result into being more engaged at work. The discrepancy between this finding and prior studies may be attributed to cultural differences within the Nigerian population. Nigeria is a multicultural country consisting of people with different cultures. For example, Nigeria is a multinational state of over 250 ethnic grouping, of which the largest are Hausa, Igbo and Yoruba. These ethnic groups speak over 500 languages, have diverse cultures and exhibit unique art. Nigeria's belief comprises of three main religions, which are Christian, Islam and indigenous traditions. These differences likely resulted in distinct views of the work environment and relationships, different interpretations of work needs and standards, and varied adaptations to organisational issues (Hofstede 1980). Due to these cultural differences, future research should use the existing study model in cross-cultural studies with a similar population.

### **6.2.2 Autotelic personality and social support**

Hypothesis 2 of this study stated that autotelic personality is significantly related to social support. The finding of this study revealed that autotelic personality has a significant effect on social support. This study is in line with the COR Theory (Hobfoll 1989), which states that autotelic individuals will handle challenges and be committed to their work through the availability of social support from their organisation. This result is consistent with past studies, which posited that social support from organisations would give autotelic individuals the sense to be more capable of handling challenges and committed to their promises (Akbari et al. 2023; Callea et al. 2022). Also, this study is in line with (Liu et al. 2023), which stated that characteristics of autotelic individuals, such as information-seeking behaviour, broad-mindedness and openness to novelty, empower them to be engaged in new challenges and have an open discussion concerning work-related tasks with their supervisor and co-workers to contribute to the organisational goals. The result of this study implies that nurses of the public hospitals in question who possess autotelic personality are likely to recognise and seek out social support to set and achieve hospital goals. One possible explanation for this is that autotelic individuals have several basic needs, such as being curious, need to achieve and openness to novelty; as such, social support is intrinsically motivating

and tied to the fulfillment of these basic needs (Csikszentmihalyi 1997). Thus, autotelic nurses facing challenging activities at work are able to make use of social support available in the organisation.

### **6.2.3 The mediating role of social support on autotelic personality and employee engagement**

This study further tested the mediating role of social support on the effects of autotelic personality and employee engagement. The result of this study revealed that social support mediates the relationship between autotelic personality and employee engagement. The result is consistent with COR Theory (Hobfoll 1989), which states that autotelic personality through social support will strive to achieve a positive work outcome, such as employee engagement. Also, this study aligns with previous studies, which state that individual personality and social support are related to employee engagement (Albrecht & Marty 2020; Saks 2022). Furthermore, this study is in line with (Callea et al. 2022; Kanten & Arda 2021), which state that specific individuals that thrive and face potential threats will perceive support as a general predisposition to influence and foster engagement at work. Autotelic employees will be equipped to take risks and turn a work threat into enjoyable challenges when they have the necessary social support, which will further lead to engagement (Kanten & Arda 2021; Macey & Schneider 2008). Therefore, the result of this study implies that nurses with autotelic personality will see social support as a resource that helps them be engaged at work. That is, autotelic nurses who sense the availability of support in the hospital will likely impact workability and express engagement.

### **6.2.4 Positive affectivity personality and employee engagement**

The result of this study revealed that positive affectivity is related to social support as proposed in the hypothesis. This result is inconsistent with the COR Theory (Hobfoll 1989), which states that individual personality is an essential predisposition of employees to be engaged at work. Also, this study's result contradicts previous studies' findings, which revealed that the higher positive affectivity an employee possesses, the higher such employee will likely be engaged (Hong et al. 2021; Shen et al. 2022). The result of this study implies that positive affectivity is not a predictor of employee engagement. That is, positive affectivity personality does not affect or improve

employee engagement significantly. One possible explanation could likely be that this relationship may be moderated or mediated by other variables that will push positive affectivity personality nurses to become engaged. For example, “basic psychological needs satisfaction” may be a mediating variable between positive affectivity personality and employee engagement (Videnska 2013). Also, it could be that positive affectivity may serve as a mediating variable between other variables and employee engagement. For example, positive affectivity may be a mediating variable between employee resilience and employee engagement (Wang et al 2017), and between leadership and work engagement (Wang et al. 2017).

#### **6.2.5 Positive affectivity personality and social support**

The finding of this study revealed that positive affectivity personality is significantly related to social support. As such, the result is consistent with the COR Theory (Hobfoll 1989), which states that positive affectivity individuals will gain more self-confidence and be committed to their work through the availability of social support from their organisation. Also, this study is in line with previous studies which posited that social support is a predictor of the various behaviours of positive affectivity personality, such as being innovative, creating plans, creative thinking, proposing solutions and new ideas and improving friendly relationships among teammates (Huang et al. 2023; Ma et al. 2023; Shen et al. 2022). This study is also in line with the study of Shen et al. (2022), which states that individuals with positive affectivity always strive to create a positive working environment for others to be happy with their work; as a result, obtaining support and cooperation from both the organisation and team members will give them the enthusiasm to influence and improve the mood of others around them. However, the finding of this study implies that nurses who are high on affectivity personality are friendly, active and assertive, which makes them seek out and perceive more social support as a means to remain active at work. Also, due to their social-seeking tendencies, a deeper sense of self-confidence to set and achieve potential goals, and confidence to relate with others, positive affectivity individual is likely to identify and recognise supportive behaviour provided in performing their job (Ma et al. 2023).

### **6.2.6 The mediating role of social support on positive affectivity personality and employee engagement**

This study further tested the mediating role of social support on the effects on positive affectivity personality and employee engagement. This study revealed that social support mediates the relationship between positive affectivity personality and employee engagement. As such, this study is consistent with the COR Theory (Hobfoll 1989), which states that positive affectivity individuals will gain more self-confidence and be committed to their work through the availability of social support, which may lead to employees being engaged at work. Also, this study aligns with (Huang et al. 2023), who state that positive affectivity personality will be facilitated through social support, which will, in turn, encourage the employee to stay engaged in their work. Furthermore, this study aligns with (Rhoden & Joyce 2023), who revealed that an individual with positive affectivity through social support would display a higher level of energy and be engaged in work activities. The result of this study implies that nurses with positive affectivity in public hospitals will see or perceive social support as a desire to become more engaged. That is, the existence of social support increases the influence of positive affectivity on employee engagement.

### **6.2.7 Proactive personality and employee engagement**

Furthermore, the findings of this study revealed that proactive personality is significantly related to employee engagement. This result is in line with COR Theory (Hobfoll 1989), which suggests that personal resources (i.e., proactive personality) can help employees improve their potential to cope with the job demand and be engaged successfully. Also, this study is in line with previous studies (Bakker et al. 2020; Bakker & de Vries 2021), which revealed that employees with higher proactive personality are more engaged as they reflect personal initiative and create challenging work environments. This is also in line with the study of (Xuehui et al. 2021), which concluded that employees are immersed in work due to their higher proactive personality traits. Also, Lin et al. (2022) stated that proactive personality would increase engagement by taking personal initiative and improving the work circumstances. The result of this study corresponds with the findings of Zhang et al. (2021), who concluded that high tendencies of a proactive personality among employees promote work engagement. The finding of this study implies that employee engagement could be

strengthened or dampened as a result of fluctuations in proactive personality. That is, whenever a proactive personality improves, engagement also improves, and whenever proactive personality dampens, then engagement also dampens. Therefore, this study result can be interpreted that nurses in the public hospital in Lagos who possess proactive personality are likely to be more engaged because they tend to show personal initiative and create a challenging work environment that promotes engagement.

### **6.2.8 Proactive personality and social support**

The result of this study stated that proactive personality does not significantly related to social support. As such, this study contradicts the COR Theory (Hobfoll 1989), which states that proactive individuals will show more personal initiative to work and solve challenges through perceived social support in the organisation. Also, this study contradicts previous studies (Albrecht et al. 2021; Bakker & de Vries 2021; Zahra & Kee 2021), which revealed that people with proactive personality always seek substantial support from their supervisors to promote innovation and creativity at work. This result showed that proactive personality does not directly lead to social support. It implies that proactive nurses in the hospital in question may be reluctant to seek out social support in implementing positive changes. One possible explanation for this inconsistency with past studies could be due to the deeper sense of self-confidence to show initiative, take action, seize opportunities and achieve potential changes that proactive individuals have in social situations (Drown 2013). That is, it could be that nurses with proactive personality are less likely to recognise supportive behaviours to show more initiative and take action to bring about changes. Also, another possible explanation for this contradiction with previous studies is that the relationship between proactive personality and social support may be bidirectional (Li et al. 2014). The bidirectional nature of the relationship may render the effects of a proactive personality on social support non-significant. Future research may examine the relationship between social support and a proactive personality.

### **6.2.9 The mediating role of social support on proactive personality and employee engagement**

Although studies have not given attention to the underlying variables that mediate the relationship between proactive personality and employee engagement, this study tested

the mediating role of social support on the relationship between personality and employee engagement. The result of this study revealed that social support does not mediate the relationship between proactive personality and employee engagement. This result contradicts previous studies (Wang & Lei 2021; Xuehui et al. 2021), which stated that employees would activate personal initiative and implement positive changes in the organisation through social support, and this, in turn, may result in positive organisational outcomes such as employee engagement. Also, this study is not in line with the theory of COR Theory (Hobfoll 1989), which states that job resources, such as social support, will serve as a motivational process through which individual personality influences employee engagement. However, the non-significant mediating role of social support between proactive personality and employee engagement indicates that nurses with proactive personality in public hospitals might not see or perceive social support as a desire to become more or less engaged. The inconsistency can be explained by the fact that the relationship between proactive and employee engagement might be moderated or mediated by other variables that will push proactive nurses to become engaged. For example, work design characteristics may be a moderating variable between proactive personality and employee engagement (Drown 2013). Also, it is possible that 'hope' may be a mediating variable between proactive personality and employee engagement (Wang & Lei 2021).

#### **6.2.10 Employee resilience and employee engagement**

Furthermore, the findings of this study showed that employee resilience is significantly related to employee engagement. This study aligns with the JD-R Model's assumption (Bakker & Demerouti 2008), which states that resilient individuals have confidence in their talents and perceive their work environment as helpful and encouraging, hence increasing employee engagement. Also, the result of this study aligns with prior studies (Chikobvu & Harunavamwe 2022; Malik & Garg 2017; Ojo et al. 2021), which found that employee resilience demonstrates a high preparedness to handle challenging events at work, which ultimately supports employee engagement. Also, this study is in line with (Liang & Cao 2021), which states that resilience is a motivational mechanism that allows employees to engage in goal-directed behaviour influencing employee engagement. Also, this study is in line (Amir & Mangundjaya 2021), which states that employee resilience generates positive behaviours and attitudes in the workplace, which

can considerably boost employee engagement. The finding of this study implies that employee engagement could be strengthened or dampened due to fluctuations in employee resilience. That is, whenever employee resilience improves, employee engagement also improves, and whenever employee resilience dampens, then employee engagement also dampens. Therefore, this study's finding implies that nurses in the public hospital in Lagos ability to bounce back from a setback and challenging activities will affect their engagement at work. Thus, the resilient nurse's ability to recover from adversity is strongly related to employee engagement.

#### **6.2.11 Employee resilience and social support**

According to the findings of this study, employee resilience is significantly related to social support. This study is consistent with the JD-R Model (Bakker & Demerouti 2008), which indicates that resilient employees recover quickly from adversity and manage stress well through social support. Also, this study supports prior research that found that a supportive work atmosphere, information exchange, and words of encouragement might help employees recover from stressful events (He et al. 2023; Sevda et al. 2021). According to Liang and Cao (2021), employees will recover quickly from adversity and efficiently manage stress if the firm provides social support. As such, employees will be more likely to learn from experiences, thus strengthening their capacity to respond effectively to challenges (Qiu et al. 2020). Furthermore, this coincides with the findings of Liu et al. (2021), who concluded that individuals would be more robust in the face of stress if the organisation provides support. Resilient people will require social support to adapt to crises (Liu et al. 2021). This study implies that resilient nurses in the hospital in question would require social support to adapt to crises and cope with challenges, particularly intense work. This is because a resilient employee will need social support to adapt to crises, cope with challenges, particularly stressful jobs, and recover from adversity (Qiu et al. 2020). Thus, nurses in public hospitals will recover from setbacks speedily due to the availability of social support.

#### **6.2.12 Social support and employee engagement**

Furthermore, the findings of this study revealed that social support is significantly related to employee engagement. This result is in line with the JD-R Model (Bakker & Demerouti 2008), which states that social support is a motivational process that can

motivate employees to be engaged toward achieving work and personal goals. This study is consistent with previous studies (Bakker & de Vries 2021; Khusanova et al. 2021), which stated that support at the workplace will positively affect the state of employee engagement. Furthermore, according to the findings of Khusanova et al. (2021) and Kiema-Junes et al. (2020), employees who view their work as more supportive, cohesive, and involving were observed to be more satisfied and dedicated to their jobs and likely to be more engaged. Also, the result of this study corresponds with the findings of Inggamara et al. (2022), who reported that a supportive work environment would lead to work engagement. Therefore, the result of this study implies that nurses who get adequate support from their workplace might feel dedicated, energetic and wholly engrossed at work. That is, nurses who view their work as more supportive, cohesive, and involving were observed to be more satisfied and dedicated to their jobs and are also likely to be more engaged.

#### **6.2.13 The mediating role of social support on employee resilience and employee engagement**

This study further tested the mediating role of social support on the effects of employee resilience and employee engagement. This finding is consistent with the JD-R Model (Bakker & Demerouti 2008), which revealed that resilient employees would recover quickly from adversity and efficiently manage stress through the availability of social support, leading to engagement. The model implies that employee resilience can be increased by making social support available, leading to employee engagement. Also, this study is in line with previous (Chikobvu & Harunavamwe 2022; Malik & Garg 2017), which state that employees' ability to recover from a setback depends on resources such as social support, which will help employees become more engaged at work. According to Bakker and de Vries (2021), employee resilience and social support have been connected reciprocally to influence employee engagement. Therefore, the result of this study implies that resilient nurses in the hospital in question will bounce back from a setback and handle challenges through the availability of social support, such as information sharing and trust building; this will lead to employee engagement at work. Hence, this study summarizes that resilient nurses will be more engaged at work through social support.

### **6.3 IMPLICATIONS OF STUDY**

The following sub-sections elaborate on the theoretical and practical implications of this study. Regarding the variables of this study, this study has some implications for theoretical and practical application.

#### **1.1.1 Theoretical implication**

One of the theoretical implications of this study is that employee resilience is a personal quality and capacity that may increase employee engagement in the workplace. Employee resilience has previously been theorised as a trait, coping mechanism, and stable resource generated and demonstrated in response to adversity. This study's findings support the significance of employee resilience in the workplace.

Furthermore, this study adds to previous knowledge that social support is an underlying mechanism through which autotelic personality, positive affectivity personality and employee resilience can impact employee engagement. Social support will help employees maintain positive personalities, build resilience and adjust to the constant changes that occur in the workplace. This is because social support will help to lessen stress and other harmful effects. Using social support as a mediator in the context of autotelic personality, positive affectivity personality, resilience and employee engagement has received little attention in studies. As a result, integrating social support as a mediator between autotelic personality, positive affectivity personality resilience and employee engagement adds to the body of knowledge already available.

Another theoretical contribution is that this study extends the COR Theory to explain how autotelic personality and positive affectivity personality relate to social support. Also, how autotelic personality and positive affectivity personality relate to employee engagement through social support. Based on the COR Theory, this study revealed that nurses with autotelic personality and positive affectivity personality will see social support as a resource that helps them be engaged at work. This study's result aligns with the view that trait engagement or individual differences factors may predispose employees to be engaged or disengaged at work (Kahn 1990; Macey &

Schneider 2008). Thus, the finding enriches the employee engagement literature in the health sector by applying COR Theory.

### **6.3.1 Practical implication**

This study has several practical implications for policy-makers, particularly the HR departments, in making suitable decisions regarding engaging the nurses toward achieving the hospital's goals. The health sector requires employees who are committed and engaged in their work. This study provides a most proficient method to understand why employees in the health sectors will choose to be engaged or disengaged at work. Notably, the positive relationship between proactive personality and employee engagement will assist human resource management, especially those in the health sector, to identify, select and recruit nurses who possess proactive in the recruitment process. Also, this study will help supervise how to introduce employee development programs in the health sector to encourage nurses to become more proactive; this will actively help foster an engaging work environment.

According to Nwosu et al. (2020), employees in the health sector conduct their operations in a demanding environment with psychologically challenging assigned duties, resulting in higher workplace stress and turnover rates. With competitive and demanding work environments, public hospitals must design a strategy to retain a workforce that is not only motivated to go above and beyond official obligations, but also efficiently adapts to changing environmental needs. In the current economic climate, it may benefit public hospitals to foster employee resilience because resilience can serve as a pathway for developing and promoting engaged employees, where workers can apply their resources to meet new challenges and offer new techniques for dealing with stressful situations at work. Therefore, this study provides valuable deep insight into personnel managers and supervisors for developing concepts and patterns to promote employee resilience. This will help nurses to successfully adjust to evolving structures and rules in order to operate efficiently in demanding work environments, putting additional strain on them.

Also, the findings of this study will help management choose the most effective way to establish and encourage employee support. Hospitals should provide more social

support to nurse in order to boost their engagement. For example, hospitals should provide rapid feedback to nurses, recognise their contributions by awarding them, routinely organize team building events to foster employees' sense of belonging, and promote mutual collaboration among colleagues. Also, the fact that social support mediated the relationship between autotelic personality and positive affectivity personality and employee engagement reflects specific individuals that thrive and face potential threats will perceive support as a general predisposition to influence and foster engagement at work. Therefore, practitioners and managers in the health sector should provide the necessary social support that can enhance the nurses' ability to maintain positive personality. This can be done by organizing workshops to enhance the nurses' autotelic personality and positive affectivity. Furthermore, social support mediating the relationship between employee resilience and employee engagement reflects employee resilience can be fostered through social support. Therefore, practitioners and managers in the health sector should build concepts and patterns to improve employee resilience through social support, such as information sharing and trust building; this will help nurses to be engaged work.

### **6.3.2 Limitation of the study and recommendations for future study**

A cross-sectional study was employed because the variables are measured at one point. Moreover, despite the limitation of using the cross-sectional study, it is possible to establish some level of causal relationship from the cross-sectional analysis. According to Fraenkel and Wallen (2009), cross-sectional design entails assessing the relationship among variables and collecting data on many variables. Since this study assessed the relationship between many variables, such as selected trait engagement, resilience, employee engagement and social support, a cross-sectional survey was used to provide the necessary information to examine the relationship between the focal variables in this study. However, the result of this study has no negative impact on the outcome of this study because using the cross-sectional method is successful in earlier studies (Hamid & Shah 2018; Mount et al. 2006). Nevertheless, future studies should use longitudinal research to better answer the causal relationships among the variables in this study.

Although the methodology successfully addresses the manifest variables, critical latent variables cannot be adequately addressed using only a quantitative

approach (Ugwu et al. 2021). Due to the multifaceted and complicated nature of employee engagement, both quantitative and qualitative approaches can be used to gain a better understanding of the roles of proactive personality, employee resilience, social support, and employee engagement. Thus, future research on the same subject should adopt a mixed methodology, such as qualitative and quantitative methods, to provide more in-depth insights into the relationship between personality traits, resilience, and employee engagement.

This study concentrated only on nurses working in public hospitals. This is because there are limited studies on this population in this location, which is Lagos state, despite the availability of many public hospitals. Specifically, prior studies overlooked nurses in public hospitals, especially in the context of Nigeria and Africa in general (Coker et al. 2018). Scholars contend that having several respondents is preferable to having a single respondent. Therefore, it is highly recommended that future studies include different responders and private hospitals, as this will offer more value to the knowledge of employee engagement.

Also, the insignificant relationship between autotelic personality, positive affectivity personality on engagement can be due to not assessing some key moderating or mediating mechanism. For example, job demand, job resources, and cultural values have been found as key factors or organisation conditions necessary for facilitating workplace engagement (Bakker & Demerouti 2014; Kuntz & Roberts 2014; Nurfadhilah et al. 2021; Saks 2006). Similarly, organisational culture is a critical component in developing an engaging workplace. As previously said, employee engagement is the consequence of an interaction between the organisation and its employees (Robinson et al. 2004). Thus, individuals who obtain resources and trust from their organisation are more likely to develop a good attitude and feel required to steer their performance towards accomplishing the organization's goals. This supports that the exchange principle explains how engagement is built in the workplace (Suharti & Suliyanto 2012). Therefore, future research can examine the potential moderating and mediating effects of organisational culture and work characteristics on the direct association between autotelic personality, positive affectivity personality on engagement.

#### 6.4 SUMMARY AND CONCLUSION

This study investigates the mediating role of social support in linking autotelic personality, positive affectivity personality, proactive personality, and employee resilience on employee engagement among nurses in Nigerian public hospitals. This study established thirteen hypotheses, and nine were supported. Autotelic personality, positive affectivity personality and employee resilience were significantly connected to social support, whereas proactive personality was not significantly related to social support. Furthermore, the results reveal that proactive personality, social support and employee resilience are significantly associated with employee engagement. On the other hand, autotelic personality and positive affectivity personality were not significantly connected to employee engagement. Also, the findings show that social support significantly mediates the association between autotelic personality, positive affectivity personality, employee resilience and employee engagement. In contrast, social support does not significantly mediate the relationship between proactive personality and employee engagement. Therefore, to boost employee engagement, the hospital administration should always seek a proactive individual and provide greater social support to staff to build autotelic personality, positive affectivity, and resilience to achieve the hospital's goals.

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## APPENDIX A

### INFORMED CONSENT FORM

I am Okojie Glory; I am a Doctoral student of Graduate school of business, Universiti Kebangsaan Malaysia. I am conducting my research on the “MEDIATING ROLE OF SOCIAL SUPPORT ON SELECTED TRAIT ENGAGEMENT AND RESILIENCE ON EMPLOYEE ENGAGEMENT” as part of my doctoral research. The following information is provided for you to decide whether you wish to participate in the present study. Your participation in this study is voluntary. You are free not to participate in or to withdraw from the study at any time. Your decision will not result in any loss of benefits to which you are entitled. If you choose to participate, you may withdraw at any time by notifying me. Upon your request to withdraw, all information pertaining to you will be destroyed. Also, all the information obtained in the study will be used for educational purposes only and considered confidential. Participants' name will not be disclosed in the final report.

#### Statement of Consent

I (Initials) ..... have understood the questions asked and explained to me and I am willing to participate.

I agree

I decline

Signature of Participant.....Date.....

Signature of Witness.....Date.....

**Researcher's Contact**

Phone:

Email:

**Ethics Committee Chairman's**

**Contact**

Phone:

**APPENDIX B**  
**QUESTIONNAIRE**

**Section A: Demographic and Premise Characteristics**

**Instruction:** Please tick “X” the appropriate box.

Gender		Male	Female
Age Bracket	Current Level of Education		
15 – 24 years		School certificate (SSCE) or below	
25 – 34 years		First Degree (B.Sc.)	
35 – 44 years		Master’s degree (MSc)	
45 – 54 years		PhD	
55 years or above		Post/Rank	
Years of Service		Staff Nurse II/Midwife II	
< 5 years		Staff Nurse I/Midwife I	
5 -9 years		Senior Nursing Sister	
10 – 14 years		Matron/Principal Nursing Superintendent	
15 – 19 years		Senior Matron/Assistant Chief Nursing Superintendent	
20 – 24 years		Chief Matron II/Chief Nursing Superintendent II	
> 24 years		Chief Matron I/Chief Nursing Superintendent I	

**Section B: Autotelic personality**

For each of statement, tick “X” in the appropriate box to indicate your best response; with 1 being Strongly **Disagree** and 5 being, **Strongly Agree**

1	2	3	4	5
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>

Code	Statement	SD					SA
		1	2	3	4	5	
A1	I am curious about the world						
A2	I trust my ability to meet the high demands of the situation						
A3	When a task becomes difficult, I keep going until I complete it						
A4	I actively seek all the information I can about a new situation						
A5	When performing my tasks, I am totally absorbed in what I am doing						
A6	I like working with others when carrying out task						

Code	Statement	SD				SA
		1	2	3	4	5
A7	I don't care much about reward when taking up challenging tasks					
A8	I am eager to learn new things, methods related to doing my job					
A9	At work, I complete tasks even when they are hard					
A10	I keep working on a problem until I solve it					
A11	When I am working, I think about nothing else					
A12	At work, I complete tasks even when they are hard					
A13	I am good at finishing projects					
A14	I worry about how people view me.					
A15	I would choose a job that I enjoy over a job that pays more.					
A16	I enjoy playing difficult games					
A17	I have fun doing things that others say are boring					
A18	I find it hard to choose where my attention goes.					
A19	I worry about being laughed at.					
A20	I am able to find pleasure even in routine types of work.					
A21	I get distracted easily					
A22	I take time to explore my surroundings					
A23	I am easily affected by others impressions of me					
A24	I like solving complex problems					
A25	I am afraid of making the wrong impression.					
A26	Curiosity is the driving force behind much of what I do					

### Section C: Positive affectivity personality

For each of statement, tick "X" in the appropriate box to indicate your best response; with 1 very slightly and 5 extremely

1	2	3	4	5
<i>very slightly or not at all</i>	<i>a little</i>	<i>moderately</i>	<i>quite a bit</i>	<i>extremely.</i>

Code	Statement	VS $\longleftrightarrow$ Extremely				
		1	2	3	4	5
PS1	To what extent do you generally feel inspired					
PS2	To what do you generally feel enthusiastic					
PS3	To what extent do you generally feel proud					
PS4	To what extent do you generally feel attentive					
PS5	To what extent do you generally feel active					
PS6	To what extent do you generally feel determined					

Code	Statement	VS $\longleftrightarrow$ Extremely				
		1	2	3	4	5
PS7	To what extent do you generally feel strong					
PS8	To what extent do you generally feel excited					
PS9	To what extent do you generally feel alert					
PS10	To what extent do you generally feel interested					

#### **Section D: Proactive personality**

For each of statement, tick "X" in the appropriate box to indicate your best response with; 1 being **strongly disagree** and 5, being **Strongly Agree**.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Undecided</b>	<b>Agree</b>	<b>Strongly Agree</b>

Code	Statement	SD $\longleftrightarrow$ SA				
		1	2	3	4	5
P1	I am a powerful force for constructive change among my team					
P2	I excel at identifying opportunities in a challenging task					
P3	I am consistently on the lookout for better ways to carry out assigned tasks					
P4	No matter the odds, I persevere to ensure a change is affected					
P5	If I see something I do not like at workplace, I fix it					
P6	I generate futuristic ideas for work performance long before others can					
P7	I love being a champion for my ideas, even against others' opposition					
P8	I am always looking for better ways to do things					
P9	I can spot a good opportunity long before others can					
P10	I initiate ideas and proffer solution to challenges					
P11	At work, I complete tasks even when they are hard					
P12	I love to challenge the status quo					
P13	I am great turning problems into opportunities at my workplace					
P14	At work, I help those in problem the way I can					
P15	I feel driven to make a difference at my work place and the world					
P16	Nothing is more exciting than seeing my idea turn into reality					
P17	I tend to let others take the initiative to start new projects					

**Section E: Employee resilience**

For each of statement, tick "X" in the appropriate box to indicate your best response with; 1 being the Never and 5 being the Always

1 <i>Never</i>	2 <i>Rarely</i>	3 <i>Sometimes</i>	4 <i>Very Often</i>	5 <i>Always</i>
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Code	Statement	Never ← → Always				
		1	2	3	4	5
R1	I effectively collaborate with others to handle unexpected challenges at work					
R2	I successfully manage a high workload for long periods of time					
R3	I resolve crises competently at work					
R4	I learn from mistakes at work and improve the way I do my job					
R5	I re-evaluate my performance and continually improve the way I do my work					
R6	I effectively respond to feedback at work, even criticism					
R7	I seek assistance to work when I need specific resources					
R8	I approach managers when I need their support					
R9	I use change at work as an opportunity for growth					

**Section F: Social support received from supervisor**

For each of statement, tick "X" in the appropriate box to indicate your best response with; 1 being the Never and 5, being the Always.

1 <i>Never</i>	2 <i>Rarely</i>	3 <i>Someti</i>	4 <i>Very Often</i>	5 <i>Always</i>
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Code	Statement	Never ← → Always				
		1	2	3	4	5
S1	My supervisor talk me through work-related problems, helping me come up with solutions					
S2	My supervisor give me suggestions for easier ways of accomplishing tasks					
S3	My supervisor support me in disagreements or confrontations with him/her					
S4	My supervisor offered me information on unfamiliar policies or procedures					
S5	My supervisor provide you with encouragement (positive feedback) about your work					
S6	My supervisor offer to assist me with work when i am having a stressful shift					
S7	My supervisor listen to my work-related problems					

Code	Statement	Never ←→ Always				
		1	2	3	4	5
S8	My supervisor share his/her professional knowledge with me					

### **Section G: Employee engagement**

For each of statement, tick "X" in the appropriate box to indicate your best response with; 1 being the Never and 5, Always

1	2	3	4	5
<i>Never</i>	<i>Rarely</i>	<i>Sometimes</i>	<i>Very Often</i>	<i>Always</i>

Code	Statement	Never ←→ Always				
		1	2	3	4	5
E1	At my job, I am very mentally resilient					
E2	I am immersed in my work					
E3	At my work, I always persevere, even when things do not go well					
E4	I know what to do and I am very enthusiastic in doing it					
E5	Time flies when I am working					
E6	I can continue working for very long periods at a time					
E7	Performing my job is so absorbing that I forget about everything else					
E8	I am rarely distracted when performing my job					
E9	I exert a lot of energy performing my job					
E10	I really put my heart into my job					
E11	I feel happy when I am working intensely					
E12	I find the work that I do meaningful and purposeful					
E13	It is difficult to detach myself from my job					
E14	I get carried away when I am working					
E15	To me, my job is challenging					
E16	am proud of the work that I do					
E17	When I get up in the morning, I feel like going to work.					

## APPENDIX C

## EXPLORATORY FACTOR ANALYSIS OUTPUT FROM SPSS (VERSION 27)

<b>KMO and Bartlett's Test</b>		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.872
Bartlett's Test of Sphericity	Approx. Chi-Square	2682.117
	df	300
	Sig.	0.000

<b>Communalities</b>		
	Initial	Extraction
PS4	0.421	0.414
PS5	0.524	0.501
PS6	0.600	0.619
PS7	0.623	0.656
PS8	0.526	0.507
PS10	0.505	0.515
P8	0.515	0.483
P14	0.453	0.511
P15	0.496	0.554
P16	0.604	0.647
A4	0.448	0.438
A8	0.493	0.492
A9	0.512	0.641
A10	0.495	0.561
Ee1	0.428	0.539
Ee2	0.455	0.543
Ee3	0.441	0.514
S5	0.336	0.367
S6	0.332	0.538
S7	0.400	0.422
R5	0.493	0.513
R6	0.405	0.420
R7	0.456	0.484
R8	0.478	0.563

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R9                      0.433                      0.515

Extraction Method: Maximum Likelihood.

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Factor	Total Variance Explained						Rotation Sums of Squared Loadingsa
	Initial Eigenvalues			Extraction Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	7.508	30.031	30.031	7.029	28.114	28.114	4.984
2	2.335	9.340	39.371	1.839	7.356	35.470	4.899
3	1.840	7.360	46.731	1.372	5.486	40.957	4.964
4	1.607	6.428	53.159	1.130	4.521	45.477	4.406
5	1.357	5.429	58.588	0.899	3.596	49.073	3.184
6	1.158	4.631	63.219	0.688	2.750	51.823	2.590
7	0.816	3.263	66.482				
8	0.744	2.975	69.457				
9	0.715	2.860	72.317				
10	0.696	2.783	75.100				
11	0.633	2.532	77.632				
12	0.618	2.472	80.103				
13	0.544	2.174	82.277				
14	0.523	2.093	84.371				
15	0.491	1.965	86.336				
16	0.460	1.838	88.174				
17	0.426	1.702	89.876				
18	0.401	1.606	91.482				
19	0.382	1.527	93.009				
20	0.342	1.366	94.375				
21	0.340	1.359	95.734				
22	0.312	1.246	96.980				
23	0.292	1.167	98.148				
24	0.244	0.977	99.125				
25	0.219	0.875	100.000				

Extraction Method: Maximum Likelihood.

a. When factors are correlated, sums of squared loadings cannot be added to obtain a total variance.

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**Pattern Matrixa**


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	Factor					
	1	2	3	4	5	6
PS4	0.562					
PS5	0.640					
PS6	0.778					
PS7	0.815					
PS8	0.676					
PS10	0.764					
P8			0.509			
P14			0.807			
P15			0.771			
P16			0.763			
A4				0.576		
A8				0.502		
A9				0.842		
A10				0.749		
Ee1					0.744	
Ee2					0.736	
Ee3					0.670	
S5						0.565
S6						0.783
S7						0.578
R5		0.609				
R6		0.533				
R7		0.575				
R8		0.844				
R9		0.804				

Extraction Method: Maximum Likelihood.  
 Rotation Method: Promax with Kaiser Normalization.<sup>a</sup>

a. Rotation converged in 7 iterations.

**Factor Correlation Matrix**

Factor	1	2	3	4	5	6
1	1.000	0.442	0.487	0.523	0.269	0.274
2	0.442	1.000	0.580	0.467	0.417	0.473
3	0.487	0.580	1.000	0.552	0.475	0.245
4	0.523	0.467	0.552	1.000	0.292	0.255
5	0.269	0.417	0.475	0.292	1.000	0.302
6	0.274	0.473	0.245	0.255	0.302	1.000

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Extraction Method: Maximum Likelihood.  
Rotation Method: Promax with Kaiser Normalization.

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**Details of extracted variable indicators**

Item	Label
A4	I actively seek all the information I can about a new situation
A8	I am eager to learn new things, methods related to doing my job
A9	At work, I complete tasks even when they are hard
A10	I keep working on a problem until I solve it
PS4	To what extent do you generally feel attentive
PS5	To what extent do you generally feel active
PS6	To what extent do you generally feel determined
PS7	To what extent do you generally feel strong
PS8	To what extent do you generally feel excited
PS10	To what extent do you generally feel interested
P8	I am always looking for better ways to do things
P14	At work, I help those in problem the way I can
P15	I feel driven to make a difference at my work place and the world
P16	Nothing is more exciting than seeing my idea turn into reality
R1	I effectively collaborate with others to handle unexpected challenges at work
R2	I successfully manage a high workload for long periods of time
R3	I resolve crises competently at work
R4	I learn from mistakes at work and improve the way I do my job
R5	I re-evaluate my performance and continually improve the way I do my work
R6	I effectively respond to feedback at work, even criticism
R7	I seek assistance to work when I need specific resources
R8	I approach managers when I need their support
R9	I use change at work as an opportunity for growth
S1	My supervisor talks me through work-related problems, helping me come up with solutions
S2	My supervisor gives me suggestions for easier ways of accomplishing tasks
S3	My supervisor supports me in disagreements or confrontations with him/her
S4	My supervisor offered me information on unfamiliar policies or procedures
S5	My supervisor provides you with encouragement (positive feedback) about your work
S6	My supervisor offers to assist me with work when i am having a stressful shift
S7	My supervisor listens to my work-related problems

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S8	My supervisor shares his/her professional knowledge with me
Ee1	At my job, I am very mentally resilient
Ee2	I am immersed in my work
Ee3	At my work, I always persevere, even when things do not go well

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## APPENDIX D

## SKEWNESS AND KURTOSIS TESTS OF NORMALITY

Variable	N	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error
A1	261	1.0861	-1.3757	0.1508	1.3993	0.3004
A2	261	0.9367	-1.2173	0.1508	1.6333	0.3004
A3	261	0.9603	-1.4323	0.1508	2.2346	0.3004
A4	261	0.9107	-1.0921	0.1508	1.3301	0.3004
A5	261	1.0013	-1.2509	0.1508	1.6102	0.3004
A6	261	1.0167	-1.3560	0.1508	1.6202	0.3004
A7	261	1.1200	-0.8624	0.1508	0.0134	0.3004
A8	261	1.0019	-1.8372	0.1508	3.2186	0.3004
A9	261	0.9363	-1.1638	0.1508	1.4039	0.3004
A10	261	0.9824	-1.0654	0.1508	1.0330	0.3004
A11	261	1.1067	-0.3468	0.1508	-0.6840	0.3004
A12	261	0.9963	-0.9978	0.1508	0.7274	0.3004
A13	261	0.9921	-0.9643	0.1508	0.6513	0.3004
A14	261	1.3185	-0.0548	0.1508	-1.1948	0.3004
A15	261	1.2375	-0.6987	0.1508	-0.5011	0.3004
A16	261	1.1714	-0.1059	0.1508	-0.8275	0.3004
A17	261	1.0922	-0.2622	0.1508	-0.6224	0.3004
A18	261	1.2549	0.2984	0.1508	-0.9888	0.3004
A19	261	1.3041	0.0044	0.1508	-1.2584	0.3004
A20	261	0.9810	-1.1507	0.1508	1.3436	0.3004
A21	261	1.2162	0.6758	0.1508	-0.6103	0.3004
A22	261	1.0016	-1.0629	0.1508	0.8783	0.3004
A23	261	1.3131	0.2815	0.1508	-1.1165	0.3004
A24	261	1.1284	-0.5495	0.1508	-0.5703	0.3004
A25	261	1.2339	-0.3989	0.1508	-0.8992	0.3004
A26	261	1.2816	0.6444	0.1508	-0.6896	0.3004
A27	261	1.0514	-0.9700	0.1508	0.5234	0.3004
PS1	261	0.8633	-0.2911	0.1508	-0.5668	0.3004
PS2	261	0.9780	-0.4395	0.1508	-0.2564	0.3004
PS3	261	1.2614	-0.2714	0.1508	-0.8789	0.3004

PS4	261	0.9404	-0.4204	0.1508	-0.3374	0.3004
PS5	261	1.0898	-0.6595	0.1508	-0.2179	0.3004
PS6	261	1.0846	-0.7121	0.1508	-0.2221	0.3004
PS7	261	1.0367	-0.5701	0.1508	-0.2670	0.3004
PS8	261	1.0352	-0.7156	0.1508	0.2309	0.3004
PS9	261	1.0301	-0.7896	0.1508	0.1647	0.3004
PS10	261	0.9548	-0.5983	0.1508	-0.3272	0.3004
P1	261	0.9326	-1.2043	0.1508	1.6709	0.3004
P2	261	0.7721	-0.6502	0.1508	0.9278	0.3004
P3	261	0.8708	-1.1753	0.1508	1.7021	0.3004
P4	261	0.8836	-1.2735	0.1508	2.2823	0.3004
P5	261	0.9442	-0.8926	0.1508	0.7432	0.3004
P6	261	-1.0323	-0.7826	0.1508	0.3249	0.3004
P7	261	1.2475	-0.3459	0.1508	-0.9460	0.3004
P8	261	1.0396	-1.3738	0.1508	1.7335	0.3004
P9	261	1.0469	-0.8104	0.1508	0.3443	0.3004
P10	261	0.9161	-1.0939	0.1508	1.3079	0.3004
P11	261	0.9697	-1.1464	0.1508	1.4470	0.3004
P12	261	0.9803	-0.6470	0.1508	0.1178	0.3004
P13	261	0.9480	-0.9295	0.1508	0.8895	0.3004
P14	261	0.9152	-1.4986	0.1508	2.7822	0.3004
P15	261	0.9465	-1.2783	0.1508	1.8851	0.3004
P16	261	0.9916	-1.5061	0.1508	2.0568	0.3004
P17	261	1.0309	-0.8310	0.1508	0.3002	0.3004
R1	261	0.9009	-0.9163	0.1508	0.9662	0.3004
R2	261	0.9579	-0.4987	0.1508	0.0262	0.3004
R3	261	0.9274	-0.4969	0.1508	-0.0195	0.3004
R4	261	0.8419	-0.9915	0.1508	0.5129	0.3004
R5	261	0.9279	-1.2703	0.1508	1.7369	0.3004
R6	261	0.9441	-0.9456	0.1508	0.7293	0.3004
R7	261	0.9640	-1.0634	0.1508	0.9646	0.3004
R8	261	1.0107	-1.0455	0.1508	0.6999	0.3004
R9	261	0.8566	-1.2774	0.1508	1.7817	0.3004
S1	261	0.9225	-0.3616	0.1508	-0.4540	0.3004
S2	261	0.8926	-0.3229	0.1508	-0.5448	0.3004

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S3	261	1.1768	-0.0831	0.1508	-0.7189	0.3004
S4	261	1.0491	-0.4933	0.1508	-0.1622	0.3004
S5	261	0.9502	-0.5933	0.1508	-0.3069	0.3004
S6	261	1.0956	-0.5260	0.1508	-0.2709	0.3004
S7	261	0.9452	-0.5824	0.1508	-0.1370	0.3004
S8	261	0.8739	-0.9630	0.1508	0.5180	0.3004
E1	261	0.9714	-0.5715	0.1508	-0.1878	0.3004
E2	261	1.0006	-0.6293	0.1508	0.1127	0.3004
E3	261	1.0566	-0.7296	0.1508	-0.0014	0.3004
E4	261	0.8395	-0.6126	0.1508	0.1733	0.3004
E5	261	1.0489	-0.8607	0.1508	0.3412	0.3004
E6	261	1.0491	-0.2113	0.1508	-0.7494	0.3004
E7	261	-1.1538	-0.3366	0.1508	-0.5938	0.3004
E8	261	1.1387	-0.5785	0.1508	-0.3469	0.3004
E9	261	0.9683	-0.9670	0.1508	1.1296	0.3004
E10	261	1.0711	-1.3865	0.1508	1.4577	0.3004
E11	261	1.0095	-0.8369	0.1508	0.1902	0.3004
E12	261	0.8914	-1.2042	0.1508	1.1711	0.3004
E13	261	1.0657	-0.4987	0.1508	-0.4596	0.3004
E14	261	1.2597	-0.2327	0.1508	-0.8539	0.3004
E15	261	1.1755	-0.4506	0.1508	-0.5370	0.3004
E16	261	0.8471	-1.5011	0.1508	1.7787	0.3004
E17	261	1.0521	-0.6736	0.1508	-0.4234	0.3004

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## APPENDIX E

## MULTIVARIATE ASSUMPTIONS TEST RESULTS

Variables Entered/Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	S, P, PS, R, A <sup>b</sup>	.	Enter

a. Dependent Variable: Ee

b. All requested variables entered.

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.448a	.200	.185	.75365

a. Predictors: (Constant), S, P, PS, R, A

b. Dependent Variable: Ee

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	36.163	5	7.233	12.734	.000 <sup>b</sup>
	Residual	144.269	254	.568		
	Total	180.432	259			

a. Dependent Variable: Ee  
b. Predictors: (Constant), S, P, PS, R, A

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	1.346	.345		3.902	.000		
	PS	.046	.071	.043	.640	.523	.695	1.438
	R	.075	.063	.078	1.190	.235	.731	1.368
	P	.366	.075	.342	4.891	.000	.646	1.549

A	-.028	.079	-.025	-.357	.721	.626	1.596
S	.162	.065	.152	2.498	.013	.852	1.173

a. Dependent Variable: Ee

#### Collinearity Diagnostics<sup>a</sup>

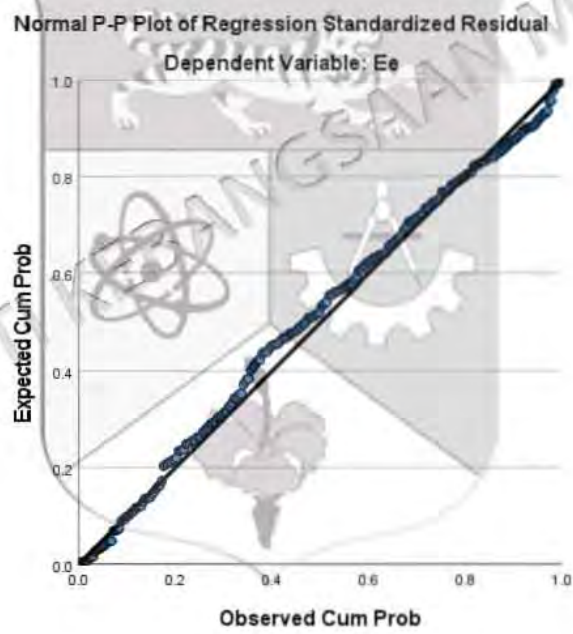
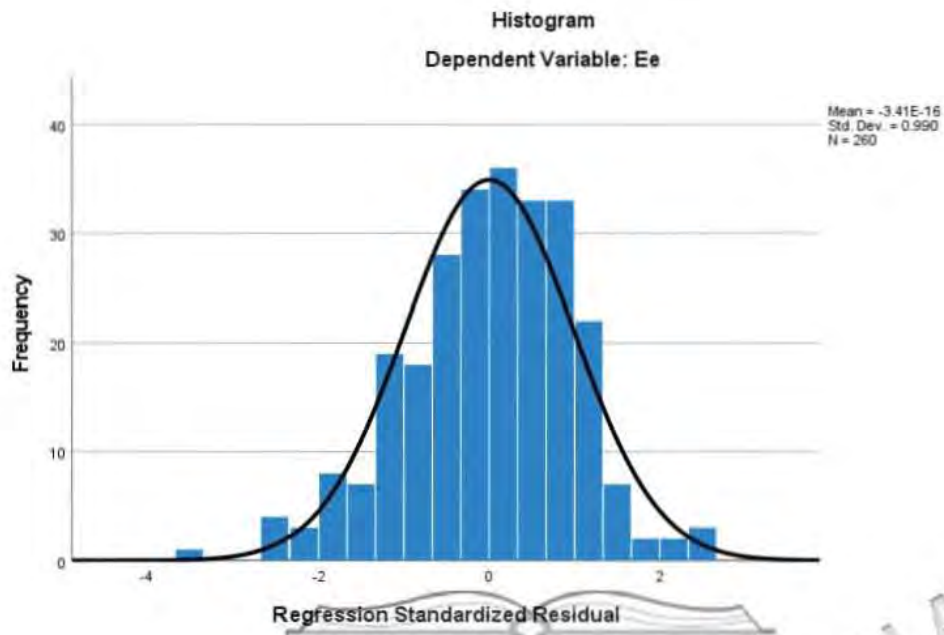
Model	Dimension	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	PS	R	P	A	S
1	1	5.884	1.000	.00	.00	.00	.00	.00	.00
	2	.038	12.475	.00	.14	.06	.08	.04	.51
	3	.027	14.672	.02	.12	.78	.02	.01	.21
	4	.021	16.635	.07	.70	.15	.25	.07	.00
	5	.016	19.472	.02	.04	.02	.58	.68	.06
	6	.015	20.091	.90	.00	.00	.07	.21	.22

a. Dependent Variable: Ee

#### Residuals Statistics<sup>a</sup>

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.5543	4.4466	3.8115	.37367	260
Residual	-2.59357	2.00213	.00000	.74634	260
Std. Predicted Value	-3.365	1.699	.000	1.000	260
Std. Residual	-3.441	2.657	.000	.990	260

a. Dependent Variable: Ee



## APPENDIX F

## MODEL VALIDITY MEASURES

## Validity Analysis

	CR	AVE	MSV	MaxR(H)	PS	R	P	A	Ee	S
PS	0.893	0.584	0.477	0.9	<b>0.764</b>					
R	0.829	0.71	0.648	0.855	0.610***	<b>0.842</b>				
P	0.846	0.579	0.51	0.854	0.620***	0.643***	<b>0.761</b>			
A	0.85	0.586	0.51	0.851	0.691***	0.672***	0.714***	<b>0.766</b>		
Ee	0.829	0.617	0.394	0.831	0.490***	0.621***	0.626***	0.522***	<b>0.786</b>	
S	0.935	0.829	0.648	0.941	0.557***	0.805***	0.497***	0.609***	0.628***	<b>0.91</b>

Significance of Correlations:

† p &lt; 0.100

\* p &lt; 0.050

\*\* p &lt; 0.010

\*\*\* p &lt; 0.001

Validity Warnings

No validity concerns here.

Validity Analysis - Confidence Intervals

Construct	CR	AVE	Lower 95% CR	Upper 95% CR	Lower 95% AVE	Upper 95% AVE
PS	0.893	0.584	0.822	0.938	0.438	0.717
R	0.829	0.71	0.677	0.931	0.515	0.871
P	0.846	0.579	0.738	0.914	0.415	0.727
A	0.85	0.586	0.742	0.919	0.419	0.74
Ee	0.829	0.617	0.711	0.912	0.452	0.776
S	0.935	0.829	0.863	0.969	0.678	0.912

HTMT Analysis

	PS	R	P	A	Ee	S
PS						
R	0.412					
P	0.524	0.526				

A	0.592	0.486	0.641			
Ee	0.298	0.374	0.509	0.303		
S	0.286	0.52	0.233	0.323	0.337	

Thresholds are 0.850 for strict and 0.900 for liberal discriminant validity.

### HTMT Warnings

There are no warnings for this HTMT analysis.

#### HTMT Analysis - Lower Confidence Intervals

	PS	R	P	A	Ee	S
PS						
R	0.17					
P	0.331	0.331				
A	0.439	0.267	0.483			
Ee	0.057	0.158	0.318	0.064		
S	0.014	0.323	0	0.051	0.094	

#### HTMT Analysis - Upper Confidence Intervals

	PS	R	P	A	Ee	S
PS						
R	0.559					
P	0.639	0.649				
A	0.687	0.622	0.743			
Ee	0.471	0.516	0.633	0.464		
S	0.447	0.64	0.406	0.487	0.496	