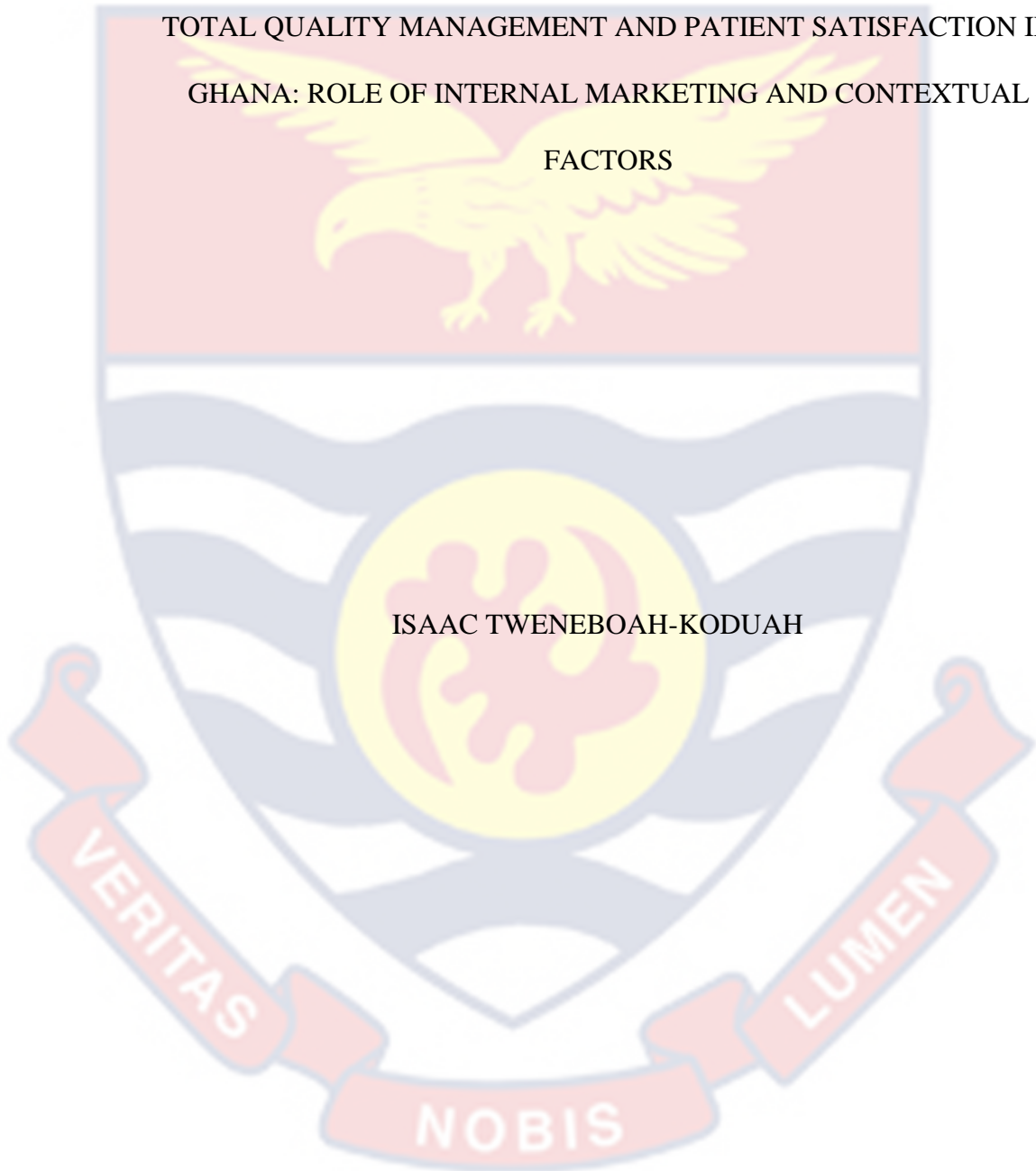


UNIVERSITY OF CAPE COAST

TOTAL QUALITY MANAGEMENT AND PATIENT SATISFACTION IN  
GHANA: ROLE OF INTERNAL MARKETING AND CONTEXTUAL  
FACTORS

ISAAC TWENEBOAH-KODUAH



2023

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TOTAL QUALITY MANAGEMENT AND PATIENT SATISFACTION IN  
GHANA: ROLE OF INTERNAL MARKETING AND CONTEXTUAL  
FACTORS

BY

ISAAC TWENEBOAH-KODUAH

Thesis submitted to the Department of Marketing and Supply Chain  
Management of the School of Business, College of Humanities and Legal  
Studies, University of Cape Coast, in partial fulfilment of the requirements for  
the award of Doctor of Philosophy degree in Business Administration

MAY 2023

## DECLARATION

### Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate' Signature..... Date.....

Name: Isaac Tweneboah-Koduah

### Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

### Principal Supervisor

Signature..... Date.....

Name: Dr (Mrs) Gloria K.Q. Agyapong

### Co-Supervisor

Signature..... Date.....

Name: Dr Andrews Agya Yalley

## ABSTRACT

The main purpose of the study was to analyse the effect of total quality management, contextual factors, and internal marketing on patient satisfaction among public hospitals in Ghana. In order to achieve the purpose of the study, five specific objectives and five hypotheses were formulated. The study was centered on three theories – the resources-based theory, affective events theory and general contingency theory. The study adopted the positivist philosophical paradigm, quantitative research approach and the explanatory research design for the study. This research was conducted in all five teaching hospitals in Ghana. Teaching hospitals play important roles in quality healthcare delivery in Ghana. A total sample size of 468 respondents were considered. The data collection instrument for the study was questionnaire. Due to the nature of the study's objectives, the structural equation model was employed in analysing the objectives of the study. The study found that total quality management enhances and fosters patient satisfaction by delivering quality services that would keep patients coming back again. Also, internal marketing has significant positive effect on patient satisfaction among public hospitals in Ghana. Again, contextual factors influenced patient satisfaction among public hospitals in Ghana. Contextual factors also moderated the relationship between total quality management and patient satisfaction among public hospitals in Ghana. Finally, internal marketing mediated the relationship between total quality management and patient satisfaction among public hospitals in Ghana. The study recommended that management of the public teaching hospitals should empower their employees to enhance their contribution towards patient satisfaction.

## KEYWORDS

Contextual factors

Internal Marketing

Patient Satisfaction

Quality Services

Teaching Hospital

Total Quality Management



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## DEDICATION

To my wife: Abena; children: Aseda and Adom; and parents: Asamoah and

Afia Boatemaa



## TABLE OF CONTENTS

	Page
DECLARATION	ii
ABSTRACT	iii
KEYWORDS	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
TABLE OF CONTENTS	vii
LISTS OF TABLES	xii
LIST OF FIGURES	xiii
<b>CHAPTER ONE: INTRODUCTION</b>	
Background to the Study	1
Statement of the Problem	9
Purpose of the Study	12
Research Objectives	13
Research Hypotheses	13
Significance of the Study	21
Delimitations	24
Organisation of the Study	25
<b>CHAPTER TWO: LITERATURE REVIEW</b>	
Introduction	26
Theoretical Review	26
Resource-based theory	26
Affective events theory	29
General contingency theory	31



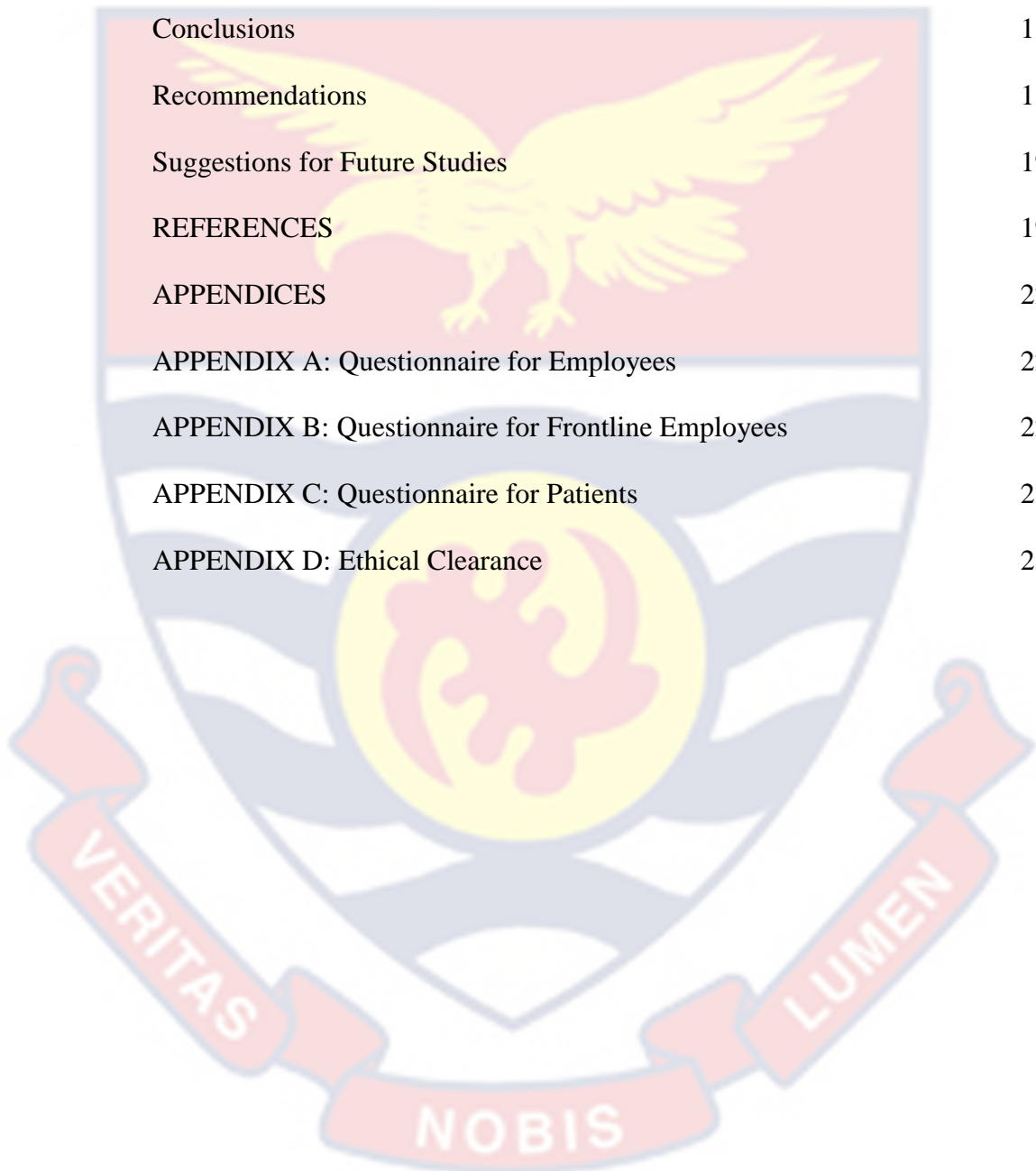
Conceptual Review	32
Total Quality Management	32
Patient Satisfaction	38
Internal Marketing	40
Contextual Factors	50
<i>Government Regulation</i>	54
Empirical Review	54
Total Quality Management and Patient Satisfaction	55
Internal Marketing and Patient Satisfaction	58
Contextual factors and patient satisfaction among teaching hospitals in Ghana	63
Moderating role of contextual factors on the relationship between total quality management and patient satisfaction	65
Mediating effect of internal marketing in the relationship between total quality management and patient satisfaction	75
Conceptual Framework	81
Chapter Summary	83
<b>CHAPTER THREE: RESEARCH METHODS</b>	
Introduction	84
Research Philosophy	84
Research Approach	86
Research Design	88
Study Design	91
Study Organisations	91
Korle-Bu teaching hospital	92

Komfo Anokye teaching hospital	93
Tamale teaching hospital	94
Cape Coast teaching hospital	95
Ho teaching hospital	96
Population	97
Sample Size and Sampling Procedure	99
Ethical Considerations	103
Data Collection Instruments	103
Pre-Testing	108
Factor Analysis	108
Reliability and Validity Tests Procedures	109
Data Processing and Analysis	111
Chapter Summary	116
<b>CHAPTER FOUR: RESULTS AND DISCUSSION I</b>	
Introduction	117
Assessment of Measurement Models for the Study	123
Assessing indicator loadings	123
Assessing Internal Consistency Reliability	128
Assessing Convergent Validity	130
Assessing Discriminant Validity	130
Model Fitness	134
Assessing the structural model	136
Assessing coefficient of determination and predictive relevance	137
Total Quality Management and Patient Satisfaction	140
Contextual Factors and Patient Satisfaction	145

Chapter Summary	151
CHAPTER FIVE: RESULTS AND DISCUSSION II	
Introduction	152
Moderating effect of contextual factors on the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana	152
Competitive intensity as a moderating variable between Total Quality management and patient satisfaction	153
Government regulation as a moderating variable between Total Quality management and patient satisfaction	156
Market dynamism as a moderating variable between Total Quality management and patient satisfaction	159
Mediating role of internal marketing on the relationship between total quality management and patient satisfaction	163
Welfare as a mediating variable between total quality management and patient satisfaction	165
Training as a mediating variable between total quality management and patient satisfaction	168
Compensation as a mediating variable between total quality management and patient satisfaction	171
Communication as a mediating variable between total quality management and patient satisfaction	174
Management Support as a mediating variable between total quality management and patient satisfaction	177
Chapter Summary	180

## CHAPTER SIX: SUMMARY, CONCLUSION AND RECOMMENDATION

Introduction	181
Summary of the Study	181
Key Findings	183
Conclusions	187
Recommendations	188
Suggestions for Future Studies	190
REFERENCES	192
APPENDICES	222
APPENDIX A: Questionnaire for Employees	222
APPENDIX B: Questionnaire for Frontline Employees	228
APPENDIX C: Questionnaire for Patients	231
APPENDIX D: Ethical Clearance	233



## LISTS OF TABLES

Table	Page
1 Population of the Study	98
2 Details of the Statistics of the Frontline Healthcare Employees	99
3 Proportional Stratified Sampling of Respondents	102
4 Variable Operationalisation and Measurement	107
5 Demographic Characteristics of Frontliners	118
6 Demographic Characteristics of Employees	120
7 Demographic Characteristics of Patients	122
8 Indicator Loadings	125
9 Validity and Reliability	129
10 Fornell-Lacker Criterion	131
11 Heterotrait-Monotrait Ratio (HTMT)	133
12 Model Fit Measures for Final Measurement Model	135
13 Multicollinearity	137
14 Direct effect of Total Quality Management and Patient Satisfaction	140
15 Contextual Factors and Patient Satisfaction	145
16 Internal Marketing and Patient Satisfaction	147
17 Moderating Effect	153
18 Indirect relationship between Total Quality Management and Patient Satisfaction	164

**LIST OF FIGURES**

Figure	Page
1 Conceptual Framework	82
2 Model Output	139



## CHAPTER ONE

### INTRODUCTION

Quality is a major concern for both individuals and organisations since it has the potential of affecting their well-being and performance. Apart from the historical traditional focus on product and service quality, organisations including hospitals, are building quality into all aspects of their operations, an approach which is known as Total Quality Management (TQM). Generally, investment in TQM results in enhanced service quality levels, reputation, market share, profitability, customer satisfaction, and compliance to regulatory requirements, among others. However, the benefits it confers on teaching hospitals in Ghana is unknown since researchers give more attention to quality management in the manufacturing sector, than the service sector. This study therefore, sought to reduce such imbalance, among other things.

Considering hospitals as vibrant subsectors of the service industry due to their sensitive operations to human survival, this study primarily sought to examine the relationship between total quality management and patient satisfaction in Ghana, and how internal marketing and contextual factors affects the relationship. The study was underpinned by the resource-based theory, affective events theory, and general contingency theory. It employed the explanatory research design, quantitative research approach, and adopted the positivism research philosophy. It provides insights relevant to both practitioners and academics for researches.

#### **Background to the Study**

In the past few decades, there has been a growing emphasis on improving the quality of healthcare services worldwide (Afrashtehfar, Assery

& Bryant, 2020). With increasing awareness of patient rights and the importance of patient-centered care, healthcare organizations have sought to implement strategies that enhance the overall patient experience. The concept of patient-centered care has gained prominence (Asamrew, Endris & Tadesse, 2020). It involves tailoring healthcare services to meet the individual needs and preferences of patients, focusing on open communication, respect for patients' autonomy, and involvement in their care decisions. Patient satisfaction is considered a crucial indicator of healthcare quality. Satisfied patients are more likely to adhere to treatment plans, have better health outcomes, and are more likely to recommend the healthcare facility to others (Ramaswamy et al., 2020).

Improved patient satisfaction can lead to increased patient loyalty and reduced patient turnover, which can ultimately have positive financial implications for healthcare organizations. Patient Experience and Satisfaction: Researchers collect data on patient satisfaction through surveys, interviews, or other methods to understand how TQM initiatives influence patients' perceptions of the care they receive (Manzoor et al., 2019).

According to Alzoubi et al. (2019), there is growing interest in enhancing work practices and procedures in the healthcare industry, which has paved the way for the adoption of overall quality management, a macro level healthcare management approach. Total quality management is a broad management philosophy that aims to continuously improve the production and delivery of services while meeting patient needs in a more affordable, expedient, healthy, and straightforward manner with the involvement of all personnel working under the leadership (Othman et al., 2020). Hospitals



should introduce and execute the idea of total quality management, according to experts like Alzoubi et al. (2019), who believe it to be an innovative management strategy (Mosadeghrad & Afshari, 2020).

Healthcare organizations may increase patient satisfaction by implementing overall quality management strategies. According to Kotler (2000), patient satisfaction is the sense of happiness from the perspective of the patient as a consequence of comparing perception of service performance in comparison to expectations. A shorter wait time, greater doctor and nurse attention, improved cleanliness and safety, accessibility to medications, and availability of lab facilities are all indicators of patient satisfaction (Rouf et al., 2017).

In turn, this benefits the hospital in terms of good name, repeat business (Yeh et al., 2018), switching barriers, and customer loyalty (Bergel & Brock, 2018). Satisfied patients are more likely to follow the doctor's advice on treatment, shorten the healing period, and improve health overall and quality of life (Baker & El-saidy, 2020). According to Al-Damen (2017), contented customers will communicate, repurchase, and are not sensitive to pricing adjustments that take place while they are purchasing a service. Since patient values, expectations, and criteria must be met for a quality management system to be effective, measuring patient satisfaction is crucial (Shahid & Anguita, 2020).

The resource-based theory of the company (Barney, 1991), which views the total quality management strategy as a resource or capability that allows healthcare organizations to attain patient satisfaction, provides an explanation for the beneficial impact of TQM on patient satisfaction. It can be

a source of competitive advantage, which is a resource that allows the aforementioned firm to significantly satisfy patients' needs in comparison to rival firms who pay lip service to the implementation of quality improvement approaches (Rezaei & Ortt, 2018), to further clarify, when the total quality management programs used by a healthcare organization are able to generate value for patients that is rare and difficult to imitate (Kura et al., 2020).

By applying the overall quality management strategy in an emergency ward of an Iranian military hospital, Lashgari et al. (2015) discover that patient satisfaction levels rose from 55.4% to 71.3%. According to Abadi et al. (2018), overall quality management among 398 patients in Indonesia favorably affects patient satisfaction. In Benha Family Centers in Egypt, Abdallah and Mohamed (2018) discover a significant positive link between healthcare personnel' knowledge of overall quality management and patient happiness. According to Nguyen and Nagase (2020), there is a correlation between comprehensive quality management and patient satisfaction at a tertiary hospital in Vietnam. Total quality management has a beneficial impact on patient satisfaction among Palestinian healthcare organizations, according to Zaid et al. (2020).

In addition to the direct link between total quality management and patient satisfaction, this study contends that this direct link can be strengthened if healthcare managers treat staff members, particularly those who interact with patients, as internal clients and encourage them to act in a customer-focused way. Internal marketing is the phrase used to describe this staff focus on meeting the needs of current clientele (Rwodzi, 2018).

According to Kim et al. (2016), internal marketing includes managerial support, training, remuneration, and welfare programs.

There are several ways that internal marketing is relevant to an organization. Internal marketing aids in decreasing staff churn rates, which lowers the expense of hiring new employees and providing them with training (Kim et al., 2016). Because of the low turnover rates, current employees experience less stress, which raises their level of job satisfaction (Sohail & Jang, 2017). Additionally, Kurdi et al. (2020) identified a strong correlation between low staff turnover and excellent customer satisfaction, which translates into overall company brand success (Sultan & Wong, 2019).

Additionally, a successful internal marketing strategy within an organization contributes to an improvement in service quality (Dessalegn, 2019; Kamalinasab, Sami, & Zendedel, 2017). This is because internal marketing is intended to enhance how an organization serves its clients and motivate staff to continuously enhance how they treat clients and one another. Additionally, internal marketing practices boost employee satisfaction (Esmaeilpour & Kamyab, 2016), which encourages workers to be more engaged and committed (Dalkrani & Dimitriadis, 2018), and as a result, they are more likely to take actions that boost customer satisfaction (Niyomwungeri & Chankov, 2021) and profitability (Adarsh, 2017). Additionally, internal marketing supports and develops a culture in which all workers see and accept the need for change (Park & Tran, 2018). As a result, effective internal marketing can make it easier for organizations to execute new strategies (Nwokah & Briggs, 2017).

In order to forward the conversation, Greenwell (2017) reveals that marketing leaders that use excellent business methods improve the financial stability of their companies. Internal marketing has a favorable and considerable impact on competitive advantage among workers of Iran's Isfahan Melli Bank, according to an empirical study by Safari et al. (2017). According to Schlebusch (2018), managers that work to build relationships with their staff and clients strengthen their company's competitive edge by encouraging new connections and maintaining old ones.

The emotive events hypothesis explains how internal marketing is considered to have a mediating function in the direct link between overall quality management and patient happiness. According to the emotional events hypothesis, workplace total quality management activities have an impact on the internal marketing goals of healthcare organizations. In an effort to improve patient happiness for the benefit of the healthcare organization, healthcare personnel frequently experience emotional reactions when internal marketing objectives are met (Weiss & Cropanzano, 1996). Total quality management and internal marketing are required at every step of the organization's operations in order to ensure patient satisfaction. It is challenging to fulfill the desire to satisfy patients without these two actions. Since comprehensive quality management has a favorable impact on patient satisfaction, this study anticipates that internal marketing will support that impact.

This study also explores the idea that certain boundary conditions or contextual elements, such as market dynamism, competitive intensity, and government regulation, may affect the direct positive impact of total quality

management on patient satisfaction. It is hypothesized that a high level of competitive intensity, market dynamism, and government regulation among healthcare units can strengthen this relationship. According to Wei et al. (2017), competitive intensity refers to how strong the competition is inside an industry. According to Miller (1987), market dynamism is the frequent, extremely difficult to foresee changes in rival and consumer behavior. According to Li et al. (2017), government regulation is a statute that limits how a firm can conduct itself.

The general contingency theory provides the foundation for the moderating impact of competitive intensity, market dynamism, and government regulation on the tie-in between overall quality management and patient satisfaction (Luthans & Stewart, 1977). According to the general contingency theory, there could be potential moderators of the relationship between total quality management and patient satisfaction, such as competitive intensity, market dynamism, and government regulation, such that when these factors are high, the relationship between total quality management and patient satisfaction becomes stronger (more positive). The association between overall quality management and patient satisfaction, on the other hand, is decreased when market dynamism, government regulation, and competitive intensity are low.

In other words, the general contingency theory holds that the interaction between a healthcare organization's conduct (total quality management) and market conditions determines its ability to endure, gain a competitive advantage, develop into an effective organization, and ultimately satisfy patients (Miller, 1981). Therefore, healthcare organizations should be

able to fit total quality management strategies with various types of industry conditions, such as competitive intensity, market dynamism, and government regulation, in order to become more efficient and effective in generating high patient satisfaction (Dranzin & Van de ven, 1985).

The claim that market dynamism, competitive intensity, and government regulation moderate the relationship between total quality management and patient satisfaction is also based on earlier studies that found evidence for these three variables' moderating effects on other direct paths. According to Takata (2016), competitive rivalry moderates the positive impact of marketing capabilities on the performance of manufacturing firms in Japan, such that marketing capabilities had a stronger impact on performance in situations of high competitive rivalry than in situations of low competitive rivalry. According to Kura et al. (2020), the direct positive link between entrepreneurial orientation and SME performance in Nigeria is moderated by competitive intensity.

Ikhsan et al. (2017) indicate that market dynamism affects the association between contextual ambidexterity and business performance among SMEs in Indonesia. This relationship is not always present. According to Donkor et al. (2018), market dynamism in Ghana strengthens the link between strategic planning and SME success. Market dynamism greatly reduces the impact of competitive advantage on the market and financial performance of hotels in Thailand, according to Suksri et al.'s (2019) analysis. Park et al.'s (2019) research supports the idea that market dynamism has a strong moderating effect on the relationship between SME CEO decision-making and SME company success in South Korea.

Regarding government regulation, Li et al. (2017) report that among Chinese energy-intensive listed businesses, strict government regulation greatly improves the beneficial effect of corporate environmental responsibility on company financial performance. According to Kim et al. (2018), government assistance greatly strengthens the impact of perceived value on drivers' intentions to adopt in Korea. According to Zhao et al. (2019), environmental legislation in China acts as a moderator in the link between knowledge spillover and the green economy. Using data from China's industrial panel, Yuan and Zhang (2020) add to the notion that regulatory enforcement constructively modifies the link between flexible environmental policy and technological innovation.

In order to close the gap between patient expectations and satisfaction that still persists in Ghana, teaching hospitals must intensify healthcare delivery utilizing improved quality improvement strategies and service-oriented healthcare staff (Anabila et al. 2020). To guarantee that all patients receive timely and acceptable treatment, all stakeholders must participate (Odonkor et al. 2019). In light of the foregoing, the objective of the present study is to evaluate the mediating and moderating effects of internal marketing on the direct correlation between overall quality management and patient satisfaction in Ghanaian teaching hospitals.

### **Statement of the Problem**

Patients appear to be consistently dissatisfied with the quality of healthcare delivery offered by Ghanaian teaching hospitals (Anabila et al., 2020), resulting from missing babies (Quaicoe-Duho, 2018), lack of modern facilities [Association of Certified Chartered Accountants (ACCA), 2019],

overbearing attitude and negligence of some health professionals, long waiting times at the hospital, and escalating medication errors (Yeboah, 2017). Consequently, the service-process of these teaching hospitals and their interaction with patients and patients' relatives and friends seem to have fallen short of professional standards (ACCA, 2019).

This problem highlights possible weaknesses in total quality management approaches of teaching healthcare organisations in Ghana, underscoring the need to change their existing traditional business operation in order to achieve sustainable development goal 3, which is rooted in good health and well-being. The welfare packages of healthcare professionals, who represent internal customers of healthcare organisations, also seem not to be fully addressed (Ghana Healthcare Quality Strategy Report, 2017), and this issue could heighten the effect of total quality management weaknesses on patient dissatisfaction, as enshrined by the affective events theory (Weiss & Cropanzano, 1996).

Dissatisfied patients are more likely to stop following their doctors' recommendations for treatment (Tamaian et al., 2017), which could worsen illnesses, impair quality of life, and harm overall health (Polónia et al., 2020). This would have devastating effects on healthcare organizations, including patient disloyalty, switching, bad word-of-mouth, and bad reputation (Um & Lau, 2018). According to the general contingency theory's (Luthans & Stewart, 1977) predictions, certain unfavorable boundary conditions or contextual elements, such as a lack of market dynamism, low levels of competition, and government regulation, seem to amplify the effects of total



quality management flaws on patient dissatisfaction in Ghana's teaching hospitals.

However, there is a paucity of research on the relationship between overall quality management and patient happiness. The few studies that were closely linked (Abadi et al., 2018; Abdallah & Mohamed, 2018; Lashgari et al., 2015; Nguyen & Nagase, 2020; Zaid et al., 2020) were also written in the non-Ghanaian setting, leaving out the Ghanaian context. Other research has examined how total quality management affects hospital efficiency (El-Tohamy & Al Raoush, 2015), competitive advantage (Chen et al., 2020), performance (Fatima & Mahaboob, 2018), service quality (Daqar & Constantinovits, 2020), and incremental inventive capabilities (Donate et al., 2019).

Despite internal marketing's importance to healthcare organizations, little research has been done on its ability to mediate the link between overall quality management and patient happiness. Abadi et al. (2018), organizational excellence (Akanmu et al. 2020), innovation and market competition (Firman et al. 2020), employees' spirituality (Adawiyah et al. 2020), and strategies for continuous improvement (Jimoh et al., 2019) are just a few examples of closely related studies that have completely ignored internal marketing in favor of other mediating variables.

Furthermore, it is difficult to locate literature that discusses the moderating impact of contextual factors, such as market dynamism, competitive intensity, and government regulation, on the relationship between overall quality management and patient happiness. These three moderating factors have been modeled by earlier researchers such as Kura et al. (2020),

Park et al. (2019), Yuan and Zhang (2020) on direct routes distinct from the relationship between overall quality management and patient satisfaction. Organizations may be more driven to embrace TQM methods in a highly competitive healthcare industry in order to set themselves apart and obtain a competitive edge. TQM can help healthcare providers deliver higher-quality services, leading to better patient experiences and increased satisfaction. Moreover, Rapid changes in healthcare market conditions, such as technological advancements, changing patient demographics, or shifts in healthcare policies, can affect how TQM practices are implemented and their effectiveness in improving patient satisfaction. Healthcare organizations operating in environments with strict government regulations may face additional challenges in implementing TQM practices. Compliance with regulations can divert resources and attention away from TQM initiatives, potentially impacting their effectiveness.

None of the studies in Ghana has considered contextual factors (competitive intensity, market dynamism and government regulation) as a moderating effect on the relationship between total quality management and patient satisfaction. As a consequence, this study assesses the mediating role of internal marketing and moderating role of contextual factors in the relationship between total quality management and patient satisfaction in Ghanaian teaching hospitals.

### **Purpose of the Study**

This study seeks to assess the mediating role of internal marketing and moderating role of contextual factors in the relationship between total quality management and patient satisfaction in Ghanaian teaching hospitals.

## Research Objectives

The research was guided by the following specific objectives which sought to:

1. analyse the effect of total quality management on patient satisfaction among teaching hospitals in Ghana;
2. examine the effect of internal marketing on patient satisfaction among teaching hospitals in Ghana;
3. investigate the effect of contextual factors on patient satisfaction among teaching hospitals in Ghana;
4. assess the moderating effect of contextual factors on the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana;
5. examine the mediating effect of internal marketing on the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana.

## Research Hypotheses

Based on the stated research objectives, the following hypotheses are formulated to guide the study:

H<sub>A1</sub>: There is significant relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.

H<sub>A2</sub>: There is significant relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.

H<sub>A3</sub>: There is significant relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.

H<sub>A4</sub>: There is significant relationship between service design and patient satisfaction among teaching hospitals in Ghana.

H<sub>A5</sub>: There is significant relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.

H<sub>A6</sub>: There is significant relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.

H<sub>A7</sub>: There is significant relationship between information and patient satisfaction among teaching hospitals in Ghana.

H<sub>B1</sub>: There is significant relationship between welfare system and patient satisfaction among teaching hospitals in Ghana.

H<sub>B2</sub>: There is significant relationship between training and patient satisfaction among teaching hospitals in Ghana.

H<sub>B3</sub>: There is significant relationship between compensation and patient satisfaction among teaching hospitals in Ghana.

H<sub>B4</sub>: There is significant relationship between communication and patient satisfaction among teaching hospitals in Ghana.

H<sub>B5</sub>: There is significant relationship between management support and patient satisfaction among teaching hospitals in Ghana.

H<sub>C1</sub>: There is significant relationship between competitive intensity and patient satisfaction among teaching hospitals in Ghana.

H<sub>C2</sub>: There is significant relationship between market dynamism and patient satisfaction among teaching hospitals in Ghana.

H<sub>C3</sub>: There is significant relationship between government regulation and patient satisfaction among teaching hospitals in Ghana.

H<sub>D1</sub>: There is significant moderating effect of competitive intensity on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.

H<sub>D2</sub>: There is significant moderating effect of competitive intensity on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.

H<sub>D3</sub>: There is significant moderating effect of competitive intensity on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.

H<sub>D4</sub>: There is significant moderating effect of competitive intensity on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.

H<sub>D5</sub>: There is significant moderating effect of competitive intensity on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.

H<sub>D6</sub>: There is significant moderating effect of competitive intensity on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.

H<sub>D7</sub>: There is significant moderating effect of competitive intensity on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.

H<sub>D8</sub>: There is significant moderating effect of market dynamism on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.

H<sub>D9</sub>: There is significant moderating effect of market dynamism on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.

H<sub>D10</sub>: There is significant moderating effect of market dynamism on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.

H<sub>D11</sub>: There is significant moderating effect of market dynamism on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.

H<sub>D12</sub>: There is significant moderating effect of market dynamism on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.

H<sub>D13</sub>: There is significant moderating effect of market dynamism on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.

H<sub>D14</sub>: There is significant moderating effect of market dynamism on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.

H<sub>D15</sub>: There is significant moderating effect of government regulation on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.

H<sub>D16</sub>: There is significant moderating effect of government regulation on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.

H<sub>D17</sub>: There is significant moderating effect of government regulation on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.

H<sub>D18</sub>: There is significant moderating effect of government regulation on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.

H<sub>D19</sub>: There is significant moderating effect of government regulation on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.

H<sub>D20</sub>: There is significant moderating effect of government regulation on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.

H<sub>D21</sub>: There is significant moderating effect of government regulation on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.

H<sub>E1</sub>: There is significant mediating effect of welfare system on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.

H<sub>E2</sub>: There is significant mediating effect of welfare system on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.

H<sub>E3</sub>: There is significant mediating effect of welfare system on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.

H<sub>E4</sub>: There is significant mediating effect of welfare system on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.

H<sub>E5</sub>: There is significant mediating effect of welfare system on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.

H<sub>E6</sub>: There is significant mediating effect of welfare system on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.

H<sub>E7</sub>: There is significant mediating effect of welfare system on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.

H<sub>E8</sub>: There is significant mediating effect of training on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.

H<sub>E9</sub>: There is significant mediating effect of training on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.

H<sub>E10</sub>: There is significant mediating effect of training on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.

H<sub>E11</sub>: There is significant mediating effect of training on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.

H<sub>E12</sub>: There is significant mediating effect of training on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.



H<sub>E13</sub>: There is significant mediating effect of training on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.

H<sub>E14</sub>: There is significant mediating effect of training on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.

H<sub>E15</sub>: There is significant mediating effect of compensation on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.

H<sub>E16</sub>: There is significant mediating effect of compensation on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.

H<sub>E17</sub>: There is significant mediating effect of compensation on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.

H<sub>E18</sub>: There is significant mediating effect of compensation on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.

H<sub>E19</sub>: There is significant mediating effect of compensation on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.

H<sub>E20</sub>: There is significant mediating effect of compensation on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.

H<sub>E21</sub>: There is significant mediating effect of compensation on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.

H<sub>E22</sub>: There is significant mediating effect of communication on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.

H<sub>E23</sub>: There is significant mediating effect of communication on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.

H<sub>E24</sub>: There is significant mediating effect of communication on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.

H<sub>E25</sub>: There is significant mediating effect of communication on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.

H<sub>E26</sub>: There is significant mediating effect of communication on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.

H<sub>E27</sub>: There is significant mediating effect of communication on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.

H<sub>E28</sub>: There is significant mediating effect of communication on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.

H<sub>E29</sub>: There is significant mediating effect of management support on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.

H<sub>E30</sub>: There is significant mediating effect of management support on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.

H<sub>E31</sub>: There is significant mediating effect of management support on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.

H<sub>E32</sub>: There is significant mediating effect of management support on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.

H<sub>E33</sub>: There is significant mediating effect of management support on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.

H<sub>E34</sub>: There is significant mediating effect of management support on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.

H<sub>E35</sub>: There is significant mediating effect of management support on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.

### **Significance of the Study**

This thesis makes an important addition to the literature, theory, and practice of empirical research. This study adds to the body of empirical research on the impact of comprehensive quality management on patient

satisfaction in teaching hospitals and emphasizes the value of applying quality improvement methods, specifically, to healthcare organizations. Additionally, by recognizing the function of internal marketing in improving the beneficial effect of total quality management on patient satisfaction in the healthcare industry, this study adds to the body of empirical literature. Because successful organizations are driven by their employees, a healthcare organization that views employees—especially those involved in customer contacts—as internal customers and aims to motivate them to behave in a service-oriented manner stands a chance of accomplishing its overall goals and objectives.

Paying attention to employees needs regarding training, welfare, communication, compensation among others is the sure way for healthcare organisations to improve and manage patient satisfaction. An aggrieved health worker is likely to convey his/her grievances to the workplace thereby negatively affecting work activities, leading to dissatisfied patients, patients' relatives and friends. Furthermore, this study provides empirical evidence on the relevance of contextual factors in influencing the activities of healthcare organisations. A healthcare organisation does not operate isolation, it is an open system, which is affected by contextual factors, namely competition, market dynamism and government regulation. A healthcare organisation that ignores these three boundary conditions is bound to fail.

To practice, this study seeks to encourage healthcare managers and their employees to create quality improvement resources that are rare and difficult to imitate by their rivals so that they can out-compete them for their own benefit: good image, positive word-of-mouth, switching barriers, repeat

patronage and patient loyalty; and for the benefit of their patients: shorter healing period, good health and quality of life. In addition, this study is a reminder to marketing executives of the need to continuously ensure that the welfare needs of their health workers, who are their internal customers, are addressed and motivate them to behave in a service-oriented manner towards satisfying patients, patients' relatives and friends. Moreover, healthcare managers should pay attention to three boundary conditions, namely competitive intensity, market dynamism and government regulation; if they want to stay in business.

In theory, this study extends and underscores the importance of the resource-based theory, which explains the effect of total quality management on patient satisfaction in the healthcare sector. Moreover, this study contributes to the affective events theory in explaining how total quality management activities employed by healthcare organisations affect their internal marketing objectives, which when achieved often evokes emotional reactions among health workers in striving to achieve patient satisfaction for the benefit of the healthcare organisation.

To add, this study contributes to the general contingency theory in elucidating the interaction effects of contextual factors (competitive intensity, market dynamism and government regulation) on total quality management approaches utilised by healthcare organisations, because, the interaction between these variables determines how well a patient is satisfaction with the service offering. Last, but not the least, this study is relevant to Ghana government officials, healthcare managers, business consulting firms and

other researchers who are interested in improving patient satisfaction in hospitals in general, and teaching hospitals in particular.

### **Delimitations**

Like all other studies, this study has boundaries. This study seeks to assess the mediating role of internal marketing and moderating role of contextual factors in the relationship between total quality management and patient satisfaction in Ghanaian teaching hospitals. Total quality management is utilised as the target exogenous latent construct, while patient satisfaction is employed as the target endogenous latent construct. Internal marketing serves as a mediator in the direct link between total quality management and patient satisfaction. Three contextual factors, namely competitive intensity, market dynamism and government regulations are modelled as moderating factors in the direct relationship between total quality management and patient satisfaction.

This study focuses on teaching hospital in Ghana. All category of healthcare staff of the targeted teaching hospitals, including managers, administrators, nurses, doctors, pharmacists, and pharmacist technicians, accounts staff, laboratory technicians, and physiotherapy staff will respond to questions or statements relating to total quality management, because, total quality management require the participation of all those working under the leadership. This same category of healthcare workers will respond to the questionnaire measuring the contextual factors, namely competitive intensity, market dynamism, and government regulation.

Patients who are receiving treatment at the selected teaching hospital at the time of data collection will respond to questions/statements regarding

patient satisfaction, because, patients are the recipient of healthcare services and they are the right people to give feedback regarding how they were served. Thus, three separate and distinct questionnaires will be developed and used for data collection. One questionnaire will contain statements relating to total quality management and contextual factors, another questionnaire will cover statements concerning to internal marketing, and a third questionnaire will contain statements that relate to patient satisfaction.

### **Organisation of the Study**

There are five primary chapters to this work. The introduction is covered in Chapter 1, along with the study's context, problem statement, research aims, hypotheses, importance, delimitations, study organization, and chapter summary. The theoretical review, conceptual problems, empirical review, conceptual framework, lessons learned from the literature study, and chapter summary are all covered in Chapter Two's review of numerous literatures pertinent to this research endeavor. The research methodologies used for the study are covered in detail in Chapter Three, including the research philosophy, research approach, research design, study design, population, sample size, sampling procedure, data collection instruments, data collection procedure, data processing and analysis, ethical consideration, and chapter summary. Chapter Four considers the results and discussion, and Chapter Five finalises the thesis with the summary, conclusions and recommendations.

## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

The literature review for this study is covered in this chapter. A literature review is an activity that uses the body of knowledge to guide the current investigation. The theoretical review, conceptual review, empirical review, and conceptual framework make up the structure of the literature review for this study. A chapter summary follows this one.

#### Theoretical Review

This section considers the theories that underpin this study. This study integrates three theories in addressing the purpose of this study, which seeks to assess the mediating role of internal marketing and moderating role of contextual factors in the direct relationship between total quality management and patient satisfaction in Ghanaian teaching hospitals. These three theories are: the resource-based theory, affective events theory, and general contingency theory. Each of the three theories is discussed in detail below:

#### *Resource-based theory*

In this study, the resource-based theory is used to explain the proposed positive effect of total quality management on patient satisfaction. The resource-based theory holds that the ability of a healthcare facility to satisfy its patients is dynamically influenced by its current total quality management approaches. The theory regards total quality management as an internal resource and ability which enables healthcare organisations to offer high patient satisfaction (Barney, 1991).



According to the claim made by Barney (1991), healthcare organizations may gain a competitive edge over their rivals by effectively utilizing their in-house resources and competencies. To put it another way, when a healthcare organization's total quality management programs are able to produce value for patients that is uncommon and difficult to imitate (Rezaei & Ortt, 2018), they can be a source of competitive advantage, which is a resource that allows the aforementioned firm to significantly satisfy patients' needs relative to rival firms that only make a show of implementing quality improvement approaches (Kura et al., 2020).

Resource-Based Theory (RBT) provides valuable insights into how Total Quality Management (TQM) practices can impact patient satisfaction in healthcare organizations. RBT suggests that an organization's unique resources and capabilities can lead to sustained competitive advantage. TQM requires a commitment from all employees to continuously improve processes and service quality (Febres-Ramos & Mercado-Rey, 2020). Healthcare organizations that invest in training, development, and empowerment of their staff to implement TQM principles are more likely to deliver better patient experiences. Empowered and skilled healthcare professionals can engage in patient-centered care, leading to higher patient satisfaction.

TQM relies on data-driven decision-making and continuous measurement of performance (Karaca & Durna, 2019). Healthcare organizations that have robust data management systems and regularly collect patient feedback can identify areas for improvement and address patient concerns promptly. This focus on data-driven improvements can lead to higher patient satisfaction as healthcare services become more responsive to patient

needs. TQM requires a culture of quality, where all employees are aligned with a customer-centric mindset. Healthcare organizations that foster a culture of accountability, teamwork, and continuous learning tend to have a more positive impact on patient satisfaction. A culture that prioritizes patient needs and values patient feedback is likely to create a supportive environment for high patient satisfaction (Orrange et al., 2021).

TQM focuses on process improvement and eliminating defects in service delivery. Healthcare organizations that excel in process management and can streamline workflows are more likely to provide efficient, consistent, and reliable care, leading to increased patient satisfaction. TQM encourages organizations to build strong relationships with customers, including patients. Healthcare organizations that effectively manage patient relationships through open communication, responsiveness to patient needs, and personalized care are likely to see higher patient satisfaction scores. TQM also emphasizes innovation and adaptability. Healthcare organizations that continuously innovate and adapt their services to meet changing patient expectations are more likely to deliver better patient experiences and higher satisfaction levels (Chen et al., 2020).

The resource-based theory has been used by existing scholars in their work because of how relevant it is. For instance, Sawaeen and Ali (2020) utilized the resource-based theory to explain the impact of two variables on organizational performance among SMEs in Kuwait: entrepreneurial leadership and overall quality management methods. The impact of two factors, total quality management and corporate social performance, on the financial and market performance of Turkish enterprises was examined by Sila

(2020) using the resource-based theory. In order to meet research goal one, which aims to analyze the direct impact of overall quality management on patient satisfaction among teaching hospitals in Ghana, this study relies on the presumptions of the resource-based theory.

### *Affective events theory*

The emotive events hypothesis explains how internal marketing is considered to have a mediating function in the direct link between overall quality management and patient happiness. According to the emotional events hypothesis, workplace TQM initiatives have an impact on the internal marketing goals of healthcare organizations. In an effort to improve patient happiness for the benefit of the healthcare organization, healthcare personnel frequently experience emotional reactions when internal marketing objectives are met (Weiss & Cropanzano, 1996).

Affective Events Theory (AET) can provide insights into how Internal Marketing can influence patient satisfaction in healthcare organizations. AET posits that events in the workplace trigger emotional reactions, which, in turn, influence employees' attitudes and behaviors. In this context, Internal Marketing refers to treating employees as internal customers and promoting a customer-oriented culture within the organization. When applied to healthcare settings, Internal Marketing aims to engage and motivate healthcare professionals to deliver high-quality services that meet or exceed patient expectations.

Internal Marketing initiatives, such as recognizing and rewarding employee efforts, providing opportunities for professional development, and creating a supportive work environment, can enhance the emotional

experiences of healthcare professionals. When employees feel valued, respected, and motivated, they are more likely to experience positive emotions like job satisfaction and engagement. Affective Events Theory proposes that emotions can be contagious. When healthcare professionals experience positive emotions due to Internal Marketing efforts, they are more likely to transmit these positive emotions to their patients during interactions. Patients are sensitive to the emotional cues of healthcare providers and are likely to feel more satisfied when they perceive genuine care and empathy.

Internal Marketing initiatives can also influence employees' motivation and prosocial behavior. When healthcare professionals feel appreciated and motivated, they are more likely to go above and beyond their basic job requirements to provide exceptional patient care. Patients who receive personalized and compassionate care are likely to report higher levels of satisfaction. Affective Events Theory emphasizes the role of the organizational context in shaping emotional experiences. Internal Marketing contributes to a positive organizational culture and climate, where employees feel supported and valued. A positive organizational culture enhances employees' emotional well-being and job satisfaction, leading to better patient interactions and, ultimately, higher patient satisfaction.

Total quality management and internal marketing are required at every step of the organization's operations in order to ensure patient satisfaction. It is challenging to fulfill the desire to satisfy patients without these two actions. Accordingly, this study anticipates that internal marketing will have an impact on the positive effect that total quality management has on patient satisfaction. Strong internal marketing initiatives investigated by healthcare organizations

may strengthen the relationship between total quality management and patient satisfaction, whereas weak internal marketing initiatives may weaken it. In order to achieve research goal two, which aims to investigate the indirect impact of internal marketing on the direct link between overall quality management and patient satisfaction across teaching hospitals in Ghana, this study focuses on the premises of the emotional events theory.

### *General contingency theory*

The general contingency theory (Luthans & Stewart, 1977) serves as the foundation for the postulated moderating influence of contextual circumstances on the direct link between overall quality management and patient satisfaction. The general contingency theory postulates that contextual factors or industry conditions, such as competitive intensity, market dynamism, and government regulation, may be potential moderators of the relationship between total quality management and patient satisfaction. Accordingly, when competitive intensity, market dynamism, and government regulation are high, the direct relationship between total quality management and patient satisfaction becomes stronger (more favorable). The direct link between overall quality management and patient satisfaction, on the other hand, is impaired when market dynamism, government regulation, and competitive intensity are low.

To put it another way, the general contingency theory holds that a healthcare organization's capacity to endure, gain a competitive edge, develop into an effective entity, and ultimately satisfy patients depends on the interaction between its total quality management practices and industry conditions, such as competitive intensity, market dynamism, and

governmental regulation (Miller, 1981). Therefore, healthcare organizations should be able to build a match between overall quality management techniques and various sorts of industry situations in order to become more efficient and successful in creating high patient satisfaction (Dranzin & Van de ven, 1985).

In order to address research objectives three to five, which aim to evaluate the moderating effect of competitive intensity (objective three), market dynamism (objective four), and government regulation (objective five), this study borrows from the intentions of the general contingency theory. These objectives examine the direct relationship between total quality management and patient satisfaction among teaching hospitals in Ghana.

### **Conceptual Review**

This section covers the conceptual review. Conceptual review reviews the concepts that emanate from the research objectives. The concepts that are reviewed in this study are: total quality management, patient satisfaction, internal marketing, and contextual factors. Each of these six concepts is discussed in detail.

### **Total Quality Management**

There is no universally agreed definition of total quality management, as several authors have defined the concept in varied ways. Arasli and Amadeva (2004) defined total quality management as satisfaction of all interest interested groups, which can be achieved by implementing effective planning, programs, policies and strategies, humans and all other assets efficiently and sustainably. Arasli and Amadeva's (2004) definition of total

quality management highlights that this approach seeks to satisfy all interested parties using all the factors of production efficiently and sustainably.

In Talib, Rahman and Azam's (2010) view, total quality management is an administrative concept, which allows every contributor involved in the corporation to enhance and improve the corporation quality performance and to instil and establish the quality pillars and concepts. Talib et al.'s (2010) definition of total quality management is noted for the emphasis it placed on the contribution of all parties. While Arasli and Amadeva's (2004) definition highlights the need to satisfy all parties, Talib et al.'s (2010) definition of total quality management concentrates on the contribution of all parties.

According to El-Tohamy and Al Raoush (2015), total quality management is a set of principles that seek to increase stakeholders' satisfaction through best use of organisational resources. El-Tohamy and Al Raoush's (2015) definition of total quality management seems parallel to the definition by Arasli and Amadeva's (2004), in the sense that, both definitions seek to increase the satisfaction interested parties via an economically sustainable manner. ISO 9001 (2015) defines total quality management as a management system for customer-focused organisations that engages all employees in a process of continual improvement.

The definition of total quality management by ISO 9001 (2015) can be likened to that of Talib et al. (2010) since both definitions stress on the contribution of all employees. However, ISO 9001 (2015) adds another dimension that total quality management approach is embraced by organisations that are customer-focused. Al-Shdaifat (2015) illustrates that total quality management is a continuous quality improvement, which

combines two concepts: management method and philosophy. This definition by Al-Shdaifat (2015) contributes to literature by stating that total quality management is not static, but a continuous quality improvement phenomenon.

Hawas (2015) defined total quality management as a method of running an institution based on quality and the contribution of all individuals and seeking success for a long time by satisfying the needs of customers and providing benefits to all members of the organisation and society. Unlike other definition, such as those offered by Arasli and Amadeva (2004), Talib et al. (2010), El-Tohamy and Al Raoush (2015) and ISO 9001 (2015); Hawas' (2015) definition of total quality management stresses that the concept involves the combined efforts and satisfaction of all stakeholders both those within and those outside of the organisation, making Hawas' definition more robust.

In the opinion of Boukhaloua (2016), total quality management is an administrative system that uses and applies tools that have been effectively developed and applied to organisation, with a change in employee attitudes and daily levels of operation, where all departments have a long-term commitment to quality. Boukhaloua's (2016) definition of total quality management resembles that of Talib et al. (2010), in the sense that, it is an administrative concept. Beyond this, Boukhaloua (2016) stresses that, for total quality management to be effective, it must be accompanied by a change in employee attitudes and daily levels of operation.

Total quality management, according to Halis et al. (2017), is the mindset, structure, and culture of any association or organization that aims to provide customers with the goods and services they need. Anil and Satish



(2019) define total quality management as a shift in the way an organisation is managed, which includes focusing the energies of the organisation on the continuous improvements of all processes and functions, and above all the different stages of work, as quality is nothing more than knowledge of customer desires and converting these into specifications that fulfil customer's needs.

Anil and Satish's (2019) definition acknowledges that total quality management is a shift in the way an organisation is managed, and this acknowledgement is identical to an aspect of Boukhaloua's (2016) definition which states that total quality management involves a change in employee attitudes and daily levels of operation. Moreover, Anil and Satish's (2019) definition of total quality management admits that it is a continuous improvement phenomenon as painted in the earlier definitions offered by ISO 9001 (2015), and Al-Shdaifat (2015).

Total quality management, according to Othman et al. (2020), is a broad management philosophy that seeks to continuously improve product production and delivery while meeting customer needs in a more affordable, expedient, healthy, and straightforward manner. Total quality management is described in a unique way by Othman et al. (2020), indicating that the idea is a comprehensive management philosophy. The goal of TQM, according to Mosadeghrad and Afshari (2020), is to please consumers, avoid poor service quality, assure ongoing improvement, assess performance, discover opportunities, sustain improvements, and remove sources of cost inefficiencies.

From the foregoing, nine themes evolved from the varied definitions of total quality management put forward by earlier researchers. According to them, total quality management involves: (1) the contribution of all parties, (2) satisfaction of all parties, (3) in an economically sustainable manner, (4) utilising all factors of production, (5) employed by customer-oriented firms, (6) continuous quality improvement (7) is an administrative system, (8) involving a change in employee attitudes and daily levels of operation, and (9) it is a broad management philosophy. These themes led to seven components of total quality management. These included information and analysis, managerial leadership, benchmarking, continuous process improvement, service design, human resource management, and benchmarking.

#### ***Management Leadership***

Management leadership is a critical component of TQM. It involves the commitment and involvement of top-level management in driving the quality improvement initiatives. Effective leadership sets the vision, goals, and direction for the organization's quality efforts. Leaders communicate the importance of quality, allocate resources, and support the implementation of TQM practices throughout the organization (Alzoubi et al., 2019).

#### ***Benchmarking***

Benchmarking is the process of comparing an organization's performance against industry best practices or its competitors. It helps identify performance gaps and areas for improvement. By learning from others' successes and adapting proven practices, organizations can set realistic performance targets and continuously strive for excellence (Toke & Kalpande, 2020).

### ***Continuous Process improvement***

Continuous Process Improvement is the cornerstone of TQM. It involves an ongoing effort to identify, analyze, and improve processes to enhance efficiency and quality. Organizations use tools and methodologies like Six Sigma, Lean, and Plan-Do-Check-Act (PDCA) cycle to streamline workflows, reduce defects, and eliminate waste, resulting in improved overall performance (Nasim, Sikander & Tian, 2020).

### ***Service design***

Service design focuses on creating and improving services to meet customer needs and expectations effectively. TQM encourages organizations to design services with a customer-centric approach, ensuring that processes are designed to deliver high-quality services and positive customer experiences (Arifin et al., 2022).

### ***Human Resource Management***

Human Resource Management in TQM emphasizes the importance of developing and empowering employees. It involves hiring, training, and retaining skilled and motivated staff. Engaged employees are more likely to contribute positively to quality improvement efforts, leading to better overall organizational performance (Pambreni et al., 2019).

### ***Quality assurance***

Quality Assurance involves the establishment of systems and processes to ensure that products and services meet defined quality standards. It includes activities like audits, inspections, and adherence to specific procedures to monitor and maintain quality levels. Quality assurance ensures consistency and reliability in the delivery of products and services (Abbas, 2020).

### *Information and Analysis*

Information and Analysis are crucial for evidence-based decision-making in TQM. Organizations collect and analyze data to assess performance, identify trends, and make informed decisions on process improvements. Data-driven insights provide a basis for setting objectives, measuring progress, and achieving quality objectives (Nguyen & Nagase (2019).

### **Patient Satisfaction**

Patient satisfaction, according to Tse and Peters (1988), is the patient's reaction to the assessment of the apparent mismatch between prior expectations and the actual performance of the care received. Bernna (1995) defined patient satisfaction as the assessment of how well the care received compared to the patient's expectations. By analyzing the patient's assessment of service delivery in connection to expectations, Kotler (2000) claims that patient satisfaction refers to feelings of happiness or disappointment from the patient's perspective. Dissatisfaction results from service performance that falls short of expectations; while, satisfaction results when service performance meets patients' expectations.

Kotler's (2000) definition of patient satisfaction is regarded by Solomon (2017) as the most comprehensive definition of patient satisfaction. In Kotler's (2000) view, patient satisfaction is, therefore, a match of expectations with experiences of the patient during a treatment process. Kotler's (2000) definition resembles the definition put forward by Tse and Peter (1988), but looks more comprehensive than that of Bernna (1995), in the sense that, it compares perception of service performance in relation to the

patient's expectations. Ygge and Arnetz (2001) define patient satisfaction as the assessment of service quality from the patient's perspective. According to ISO 10001 (2007), patient satisfaction is the patient's perceptions of the quality of care delivered by a healthcare organisation.

Shabbir et al. (2016) defined patient satisfaction as an important characteristic of healthcare service quality and an important indicator of success sign in healthcare. Shabbir et al.'s (2016) definition stands out due to its pronouncement that patient satisfaction is an essential yardstick for measuring success in healthcare. Hussain et al. (2019) referred to patient satisfaction as the result of satisfaction with a series of transactions occurring during the service process. Hussain et al.'s (2019) definition emphasises that a patient evaluates his/her satisfaction based on series of transactions during the services process, but not just one single transaction. In the view of Abd-Elmonem et al. (2019), patient satisfaction refers to patient's reporting of pleasure or contentment.

Gleaning from the definitions above, five thematic areas emerged from the several definitions of patient satisfaction offered by earlier researchers. According to them, patient satisfaction: (1) is a patient's response, (2) results from comparing perception of service performance in relation to expectations, (3) patient evaluates series of transactions during the services process, (4) involves feeling of happiness or disappointment, and (5) is an important indicator of success sign in healthcare.

A shorter wait time, greater doctor and nurse attention, improved cleanliness and safety, accessibility to medications, and availability of lab facilities are all indicators of patient satisfaction (Rouf et al., 2017). In turn,

this benefits the hospital in terms of good name, repeat business (Yeh et al., 2018), switching barriers, and customer loyalty (Bergel & Brock, 2018). Satisfied patients are more likely to follow the doctor's advice on treatment, shorten the healing period, and improve health overall and quality of life (Baker & El-saidy, 2020). According to Al-Damen (2017), contented customers will communicate, repurchase, and are not sensitive to pricing adjustments that take place while they are purchasing a service.

Among all healthcare professionals, nurses have been deemed to have the most frequent contact with patients; therefore, most patients rate their satisfaction with their health facility by mostly considering how nurses have served them (Kol et al., 2018). From the time of admission until discharge, patient satisfaction is correlated with perceptions of nursing care relative to patients' expectations. The nursing care provided by nurses is regarded as the most important factor in patient assessments of their satisfaction with nursing care (Fatima et al., 2018).

Nurses spend more time with hospitalised patients compared to other healthcare professionals (Abadi et al., 2018). Thus, nurses have a significant impact upon patients' perceptions about their hospital experience (Helty, 2018). Research by Kol et al. (2018) finds that patients require more industrialised care from nurses regarding education, communication and comfort. In particular, they expect nurses to make them feel happy and comfort them, their relatives and parents.

### **Internal Marketing**

Internal marketing has no one definition that is accepted everywhere. It has been defined differently by numerous authors. Internal marketing was first

used by Berry (1981), who defined it as treating workers and employees as internal consumers while addressing organizational goals. In order to accomplish organizational objectives, employees are treated as internal customers in Berry's (1981) concept. Internal marketing, according to Hafer and Joiner (1984), refers to a company that successfully coordinates interactions between management and staff members to satisfy customer demands. The definition provided by Hafer and Joiner (1984) emphasizes the importance of communication in fostering positive employer-employee relationships and meeting the demands of the external customer.

Internal marketing, according to Johnson et al. (1986), is the service firm's endeavor to provide each employee of the organization a clear grasp of the company mission and objectives as well as the training, inspiration, and assessment needed to accomplish those goals. According to Johnson et al.'s definition from 1986, it is essential to use training, motivation, and assessment to help people understand and value a company's strategic goal. According to Barnes (1989), internal marketing is the process of making sure that staff members are dedicated to the objective of delivering the best service of consumers. In Barnes' (1989) concept, improving staff commitment to serving consumers' requirements is emphasized. Barnes' (1989) concept is similar to Hafer and Joiner's (1984) definition in that it aims to fulfill consumer demands.

Internal marketing, according to Grönroos (1990), is the practice of a company selling to its own personnel, who are seen as its internal clients. Grönroos' (1990) concept resembles Berry's (1981) definition in that they both place a strong focus on the idea that workers should be thought of as internal

clients. Internal exchanges between the organization and its employee groups are a requirement for effective exchanges with external markets, according to George's definition of internal marketing in 1990. Internal marketing is defined by George (1990) in a way that is similar to the description provided by Hafer and Joiner (1984) by emphasizing the interactions between employees and management.

Kotler and Armstrong (1991) refer to internal marketing as motivating employees to work as a team to provide top quality service. Kotler and Armstrong's (1991) definition can be likened to the definition by Johnson et al. (1986), in the sense that, both definitions acknowledge that internal marketing involves motivating employees to achieve desired goals. Internal marketing, according to Berry and Parasuraman (1991), is the process of finding, developing, inspiring, and keeping competent people through job-products that meet their requirements. According to Berry and Parasuraman's (1991) concept, employees are seen as the organization's internal customers, and jobs are seen as the product that satisfies those customers' requirements and wants while also advancing the organization's objectives. The definitions of Berry and Parasuraman (1991) and Johnson et al. (1986) are comparable because both definitions place a strong emphasis on training and inspiring people to deliver superior customer service.

Internal marketing, according to Parasuraman et al. (1991), is the practice of treating staff like clients. This term is comparable to Berry's (1981), who described internal marketing as treating workers and other employees as internal clients. Internal marketing, according to Piercy and Morgan (1991), is a comprehensive process that unifies various organizational



functions into two, enables all employees to experience and comprehend various business and operational activities and processes in the context of an environment, and inspires all staff to become prepared and enthusiastic in a service-oriented manner.

Internal marketing is a type of management technology that aims to address issues with internal service efficiency, market orientation, the effective execution of relevant strategies, and customer orientation, according to Varey and Lewis (1991). Internal marketing is defined by Greene et al. (1994) as the promotion of the company and its product(s) to the company's workers. For this approach to be effective, top-level management must completely support it. Rafiq and Ahmed (1995) provide a more detailed definition of internal marketing, viewing it as a planned effort using a marketing-like approach to overcome organizational resistance to change as well as to align, motivate, and inter-functionally coordinate and integrate employees toward the effective implementation of corporate and functional strategies. This approach is intended to deliver customer satisfaction through a process of creating motivated and customer-oriented employees.

According to Cahil (1995), internal marketing is a kind of strategic management that assures the recruitment, retention, and motivation of notable workers by fostering an atmosphere that is conducive to their demands. Cahil's (1995) definition of internal marketing looks identical to the definitions put forward by Berry and Parasuraman (1991), and Johnson et al. (1986), since they all highlight grooming and motivating employees to provide top quality service. Moreover, Cahil's (1995) definition unveils an important

theme which suggests that internal marketing should concentrate on only prominent employees.

Dennis (1995) views internal marketing as a kind of strategic management philosophy that contributes to attracting, developing, motivating and maintaining important and outstanding employees by providing a high-quality work environment and meeting their needs. Dennis (1995) shares the opinion of Cahil (1995) that internal marketing should focus on outstanding, important and prominent employees. Internal marketing, according to a detailed definition provided by Joseph (1996), is the use of marketing, human resource management, and related theories, techniques, and principles to inspire, mobilize, co-opt, and manage employees at all organizational levels to continuously improve how they treat external customers and one another.

Internal marketing, according to Sargeant and Asif (1998), refers to the actions that a company should take to entice potential workers and earn their loyalty in the long run. Internal marketing, according to Hogg and Carter (2000), is a crucial component of market orientation and calls for the application of marketing strategies within a firm to establish and spread its values. Ballantyne (2000) asserts that internal marketing occurs when marketing directs staff attention to internal operations that need to be changed to enhance the performance of the external market.

Internal marketing, according to Rafiq and Ahmed (2000), is an organized effort that uses a marketing-life approach to deal with organizational resistance to change and balance, motivate, and coordinate employees in line with effective strategy execution. The goal is to satisfy customers by developing motivated, customer-oriented employees. Internal

marketing is the deliberate use of communication acts to systematically change the knowledge, attitudes, and behaviors of present workers, according to Stauss and Hoffman (2000). This concept is in line with that of Hafer and Joiner (1984), as both definitions place a strong focus on the importance of communication in enhancing how workers work to meet the demands of the outside client.

Internal marketing, according to Hult et al. (2000), is the idea that internal consumers are also internal workers. According to the definitions offered by Berry (1981), Grönroos (1990), and Parasuraman et al. (1991), their goal is to increase the pleasure of internal consumers. According to definitions offered by Berry and Parasuraman (1991), Johnson et al. (1986), and Cahil (1995), internal marketing is the organization's attempt to teach and inspire its personnel to provide better services. Cooper and Cronin (2000) emphasized this description. Internal marketing is how marketing is used within an organization, according to Salomao (2010).

According to Paliga and Strunje (2011), internal marketing is based on viewing employees as internal customers, activities, and work tasks are seen as internal events aimed at providing internal products that satisfy the needs and desires of both internal and external customers to achieve organizational goals. According to Conradie et al. (2014), internal marketing is a management theory that holds that workers are the company's clients. Internal marketing is referred to by Conradie et al. (2014) as internal branding or employee branding, which is essential for developing an external brand. Internal marketing, according to Kukemiller (2015), is the process through

which a company communicates its principles and brand to its own workers, who are responsible for creating the brand's value.

According to Braimah (2016), internal marketing refers to proactive initiatives that treat consumers and workers equally in order to accomplish the organization's goals. Rouse (2017) defines internal marketing as an organization's effort to sell and promote its values to internal workers with the intention of increasing employee engagement, bringing them into alignment with the vision, purpose, and goals of the company, and creating brand advocacy. According to Shazia (2017), internal marketing is a way to include staff members at all levels in successful marketing initiatives and provide them the opportunity to comprehend their part within the processes.

In Azzam's (2016) view, internal marketing is a management strategy and philosophy that influences employees' attitudes and behaviour through employees' selection, training, motivations, empowerment, retaining and development which all contributes significantly in improving the quality. Suprihanto et al. (2018) define internal marketing as a method to motivate, develop, and retain employees in order to achieve a quality of service and fulfil customers' expectations.

Suprihanto et al.'s (2018) definition is comparable to that of Berry and Parasuraman (1991), Johnson et al. (1986), Cahil (1995), and Cooper and Cronin (2000). All these authors emphasise the organisation's effort to train and motivate its employees to provide better services, as a feature of internal marketing. Huang (2020) considered that internal marketing was meant to employ, train, and motivate the internal employees and induce them to know and accept the concepts and importance of the customer satisfaction. It also

supports and cooperates with the marketing department to provide excellent customer service.

From these definitions, it is obvious that employees are the object of internal marketing. Moreover, other themes that evolved from the review were that internal marketing: (1) focuses on the prominent/outstanding/important employees, especially those engaged in customer contacts, (2) seeks to build a strong relationship between employee and management, (3) aims at fulfilling the needs of the employee and making him/her satisfied, (4) improves the communication between employee and management, (5) involves grooming employees to be nice towards clients with the intention of achieving organisation objectives, (6) improves employees' commitment towards addressing customer needs, (7) is a strategic management philosophy, (8), involves the application of marketing, human resource management, and allied theories, techniques and principles, and (9), finally, considers employees and customers to be of equal importance.

It is argued that the efficient operation of an organisation and its ability to serve and delight external customers is built upon the satisfaction of internal employees (Berry, 1976). Berry also indicated that the organisation's employees should be considered and treated in the same way as its outside customers with the intention of advancing the satisfaction among employees, forming the idea of internal customers (Godson, 2009). This concept was later supported by Gronroos (2000), who declared that it is vital to build internal relationship in any organisation, such that internal customers should be served in fast, polite and in attentive manners or even beyond that. Simply, internal marketing is about giving the internal members of the organisation the most

authentic experience with the company's products, as well as promoting the company's visions, mission and goals to its employees and earn their trust and belief in the business's directions and strategies (Godson, 2009).

De Fourie and De Jager (2005) believe that the objective of internal marketing is to create relationships between management and employees and between organisational functions, while management has the responsibility to train and motivate the employees. This "employees as customers" concept in internal marketing shows that similar to the external customers; internal customers also have a desire to have their needs which should be satisfied. Fulfilling the employees' needs improves their motivation and retention, and consequently increases their job satisfaction and commitment, which, in turn, affects many organisational achievements. Additionally, from the organisational perspective, Turkoz and Akyol (2008) explain that internal marketing is a planned effort using a marketing-like approach to enhance the organisation's productivity.

Internal marketing fosters a culture that enables organizations to concentrate on what needs to change inside in order to improve their performance in the external marketplace (Fogel, 2016). Placing and treating the internal customer ahead of customers is key to attaining healthcare performance, manifested by higher service quality, customer satisfaction, customer loyalty, repeated purchases intentions, employee retention, among others. Happy internal staff members mean happy external guests. In service industry, such as the health sector, acquiring well-trained and service-oriented employees are rather more essential to the business than focusing on the product itself.

### ***Welfare Systems***

Welfare systems refer to the policies and practices put in place by the organization to support the well-being and job satisfaction of employees. This includes benefits, work-life balance programs, health and safety initiatives, and other employee support systems. When employees feel valued and supported by their organization, they are more likely to be motivated and committed to delivering excellent customer service (Nemteanu & Dabija, 2021).

### ***Training***

Training is crucial for enhancing employees' skills, knowledge, and competencies. It enables employees to perform their jobs more effectively, equips them with the necessary tools to deliver high-quality service, and boosts their confidence. Properly trained employees are better prepared to handle customer needs and provide a positive experience (Huang, 2020).

### ***Compensation***

Compensation refers to the salary and benefits employees receive for their work. A fair and competitive compensation system is essential for attracting and retaining talented employees. It also acts as a motivational factor, as employees feel rewarded and valued for their contributions to the organization's success (Mainardes, Rodrigues & Teixeira, 2019).

### ***Communication***

Effective communication is vital for internal marketing success. Transparent and open communication channels facilitate the exchange of information, ideas, and feedback between employees and management. When employees are well-informed and have a clear understanding of organizational

goals and customer expectations, they can align their efforts to meet those objectives (De Bruin, Roberts-Lmbard & De Meyer-Heydenrych, 2021).

### ***Management Support***

Management support is a critical component of internal marketing. When managers actively support and promote a customer-oriented culture, employees are more likely to embrace customer-centric practices. Supportive managers provide guidance, recognize employees' efforts, and empower them to make decisions that benefit both customers and the organization (Qaisar & Muhamad, 2022).

### **Contextual Factors**

This study specifically demarcated contextual factors into three components. These factors included competitive intensity, market dynamism, and government regulation.

#### ***Competitive Intensity***

Porter (1980) defined competitive intensity as a market- or industry-level construct that takes into account the number of players present in an industry. According to Porter (1980), a monopolistic market structure would suggest a low level of competition, whereas a market structure with perfect competition would imply a high level of competition. According to Gatignon and Xuereb (1997), competitive intensity refers to rivals' actions and the level of antagonism. Fein and Anderson (1997) defined competitive intensity as the degree of new competitive activity introduced by businesses, the frequency of promotions, and the price war.

According to Ambler et al. (1999), competitive intensity refers to the level of rivalry among partners who are cooperating. The authors clarify that



the quantity of rivals, the scope of price competition, and the ferocity of conflict are all indicators of competitive intensity. In creating this definition, Ambler et al. (1999) appear to have combined the opinions of earlier authors, highlighting phrases such as the number of competitors (as demonstrated by Porter's definition), the degree of price competition (as demonstrated by Fein & Anderson, 1997), and the intensity of rivalry (which is referred to as the "status of hostility" by Gatignon & Xuereb, 1997). Ambler et al. (1999)'s account thus seems to be more thorough than that of the preceding writers.

According to Auh and Menguc (2005), a situation where there is intense competition is one in which there are many rivals in the market and little chances for future expansion. The authors clarify that businesses may function with their current methods to fully capitalize on the transparent predictability of their own behavior when competition is less fierce. However, when competition is fierce, businesses must adjust accordingly. To do this, they must be inventive in both their processes and goods, explore new markets, come up with creative methods to compete, and consider how they may set themselves apart from rivals.

Auh and Menguc (2005)'s definition is comparable to that of Porter (1980) who also defined competitive intensity based on the number of competitors in an industry. Auh and Menguc (2005)'s description of competitive intensity educates that firms operating in highly competitive industries should consider differentiation strategy as they lack opportunities for further growth. Chen et al. (2007) conceptualises competitive intensity as a firm-level construct and define it as the level at which most competitive

engagement occurs and that serves as the basis for inferring group-level phenomena.

Wu and Pangarkar (2010) also provide a firm-level definition of competitive intensity, stating that it is the extent of tension, imposed by an organisation's rivals that might stimulate the focal firm's strategic response. Competition, according to Pearce and Robinson (2011), is the behavior that company rivals exhibit in an effort to dominate the market by persistently seeking to gain an edge over one another. According to Mahapatra et al. (2012), the management level's view of the amount of competition in local and foreign markets is known as competitive intensity.

Chen et al. (2015) regard competitive intensity as the degree to which firms face competition within their industries. Competitive intensity, according to Wei et al. (2017), is the fierceness of competition within an industry. Studying the definitions put forward by the authors above, it is evident that competitive intensity, at an industry level construct, is the extent of rivalry among firms operating in a particular industry. Other themes revealed are: (1) number of competitors within an industry, (2) behaviour of competitors, and (3) extent of price competition.

### ***Market dynamism***

Market dynamism, according to Jaworski and Kohli (1983), is the pace of change in consumer demand, product preferences, or the formation of new client categories. According to Miller (1987), market dynamism is the frequent, extremely difficult to foresee changes in rival and consumer behavior. According to Achrol and Stern (1988), market dynamism refers to how frequently external market forces are changing. The variety in

technology, pricing, product availability, and support services are defined as these external market factors. According to Rumelt and Lamb (1997), a market is characterized as dynamic if a high rate of entry and leave occurs in it. According to the authors, businesses that view their industry's dynamics as dynamic may push themselves to be more pro-active and creative, which may have a positive impact on their ability to succeed.

Market dynamism, according to Jap (1999), relates to the intensity of changes in different market components. According to the author, market dynamism has a significant impact on the technology and customer needs of businesses, enabling them to successfully react to the market swiftly. Shi and Wu (2011) provide a more comprehensive definition of market dynamism, defining it as the rate of change in the global market environment, which includes changes in the demographics of global consumers and their preferences, the volatility of the global business environment (such as changes in competitor actions and product/service offerings), and changes in the manufacturing process.

Shi and Wu (2011) describe high market dynamism as the environment in which changes often take place, but the direction and consequences of this change are unpredictable. High market dynamism ensures that firms are more sensitive to environmental changes. In this case, business process becomes more effective by using new information. Facing the dynamic changes of the market environment especially the innovative activities of the competitors, firms may have no choice but to improve continuously to take lead. Thus, a firm's innovation efforts, despite market dynamism, act as an important determinant of business success.

According to Oyewobi et al. (2013), the dynamic nature of the African business environment has caused the majority of firms to develop and adopt a proactive mindset in response to these developments. Because of this response, these firms are now able to take advantage of opportunities that are present in their operating contexts. According to the definitions presented above, it is evident that writers have a solid understanding of the idea of market dynamism because there are many parallels between them even if no term is generally recognized.

### ***Government Regulation***

According to Hood (2004), government regulation is defined as the promulgation of a binding set of rules applied by a teaching agency devoted to a purpose. Baldwin et al. (2012) offer a more generalised definition of government regulation referring to it as all state actions designed to influence social behaviour valued by the teaching. In Li et al. (2017) opinion, government regulation is a law that controls the way that a business can operate. This study adopts the definition put forward by Li et al. (2017), because, it best suits the business context. Stricter government regulations among firms in the healthcare industry can propel firm managers to adopt strategies that can improve patient satisfaction and vice versa.

### ***Empirical Review***

The study's empirical review is presented in this part. The literature review's empirical review part lists the findings of relevant research and points out any overlaps, inconsistencies, and gaps in those studies. The research goals of this study are used to organize this section. The areas of focus are: total quality management and patient satisfaction, indirect impact of internal

marketing on the relationship between total quality management and patient satisfaction, moderating impact of competitive intensity on the relationship between total quality management and patient satisfaction, moderating impact of market dynamism on the relationship between total quality management and patient satisfaction, and moderating effects of government regulations.

### **Total Quality Management and Patient Satisfaction**

The literature on the impact of overall quality management on patient satisfaction is reviewed in this section. The impact of comprehensive quality management on patient satisfaction was examined by Lashgari et al. (2015). A satisfaction survey questionnaire was used to assess patient satisfaction in the emergency department both before and after the TQM-based quality improvement approach. Patients who were hospitalized to the emergency room of the Besat Air Force General Military Hospital in Tehran, Iran between September and December 2009 and April and July 2011 participated in the study. Following talks with the accountable teams and management staff throughout the course of the 15-month satisfaction evaluation period, all potential actions were considered. The findings revealed that, following the implementation of overall quality management systems, patient satisfaction levels for services provided by doctors, nurses, transport and service workers, and imaging staff rose from 55.4% to 71.3%. However, the study by Lashgari et al. was carried out outside of Ghana, in Iran.

Abadi et al. (2018) used feedback from a sample of 398 patients in the Indonesian city of Makassar to assess the impact of overall quality management on patient satisfaction. The author used the Deming's (1950) chain reaction theory, which made the assumption that by raising service

quality through process improvement, costs could be reduced and productivity could be raised, ultimately leading to higher patient satisfaction. The results of structural equation modeling demonstrated a good relationship between comprehensive quality management and patient happiness. However, the research by Abadi et al. was carried out outside of Ghana, in Indonesia.

(2018) Abdallah and Mohamed evaluated the link between patient happiness and healthcare providers' awareness of overall quality management. The study employed a descriptive-correlational design. 120 nurses, 120 doctors, and 300 patients responded to the research at 12 Benha Family Health Centers. For healthcare professionals and patients, different questionnaires were created. The findings revealed a significant positive relationship between patient happiness and healthcare professionals' awareness of comprehensive quality management.

Total quality management and satisfaction were evaluated by Nguyen and Nagase (2020). In April 2018, a self-administered survey was given to inpatients receiving care at a tertiary hospital in Vietnam. Using the AMOS 25.0 program, a confirmatory factor analysis was carried out to ascertain the connections between the latent variables in the suggested model. The outcomes demonstrated that complete quality management positively impacted satisfaction. Despite the writers' contributions, the report was prepared with an Asian setting and ignored the Ghanaian background.

The impact of overall quality management on patient satisfaction in Palestinian healthcare organizations was examined by Zaid et al. (2020). The research was quantitative in nature. The tool for gathering data was a questionnaire. Patients in 40 particular hospitals in the West Bank region of

Palestine were asked for their opinions. The findings showed that comprehensive quality management had a substantial impact on patient satisfaction using a sample of 210 patients. Despite Zaid et al.'s research's significance, their paper was produced in a non-Ghanaian environment.

The author of this thesis anticipates a strong association between overall quality management and patient satisfaction based on findings from past studies and in accordance with the resource-based theory of the company. Therefore, the first goal of this research project was to examine the direct impact of total quality management on patient satisfaction among teaching hospitals in Ghana. This was done in order to determine whether a teaching hospital could benefit from total quality management by increasing its efforts to provide value to patients, which would increase patient satisfaction. In line with this objective, the first seven hypotheses were put forward as:

*H<sub>A1</sub>: There is significant relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>A2</sub>: There is significant relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>A3</sub>: There is significant relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>A4</sub>: There is significant relationship between service design and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>A5</sub>: There is significant relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>A6</sub>: There is significant relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>A7</sub>: There is significant relationship between information and patient satisfaction among teaching hospitals in Ghana.*

### **Internal Marketing and Patient Satisfaction**

The literature on the impact of internal marketing on patient satisfaction is reviewed in this section. Tang et al.'s (2020) quantitative study on internal marketing's contribution to happiness by altering the work-family dynamics of flight attendants. Data gathering involved the use of a questionnaire. Techniques for convenient and judicious sampling were used. Researchers discovered that internal marketing, as evaluated by communication, welfare systems, training, and management support, was directly related with satisfaction and work-family facilitation using a sample of 142 flight attendants employed by airline businesses situated in Asian nations. Despite the researchers' contribution to the field of study, their research neglected the impact of internal marketing on patient satisfaction. Furthermore, the Ghanaian context was not taken into consideration; only the Asian background was examined. Additionally, their study focused on flight attendants while ignoring medical professionals.

In Abia State, Ahaiwe and Okeke (2020) assessed the impact of internal marketing on the performance of a few chosen commercial banks. The study was conducted by the authors in Nigeria's Abia State's capital city of Umuahia. As research organizations, Sterling Bank Plc and Stanbic IBTC, two commercial banks in Umuahia, were employed. The 87 managers and employees of the two chosen banks in the Umuahia metropolitan were included in the population. With the help of SPSS software, version 20.0, the data were analyzed using a simple regression model. The authors discovered a



favorable and substantial relationship between internal marketing and banks' marketing success, as assessed by market share and profitability, and staff motivation and training. However, the authors did not take internal marketing's impact on patient satisfaction into account. Additionally, the writers ignored healthcare professionals in favor of focusing on those working in the banking industry. Furthermore, their research was done outside of Ghana, in Nigeria.

Boudlaie et al. (2020) investigated the impact of internal marketing on and organisational commitment, and employee turnover intentions. The population of their study consisted of all 9,405 employees in all Tehran branches of the Melli Bank of Iran. The Cochran formula was used to determine the sample size, which yielded a sample size of 369 employees. The authors employed the clustering method for sampling and a standard survey for data collection. They utilised structural equation method and all statistical analysis was performed using SPSS19 and AMOS23 software. The authors found that internal marketing had a positive significant effect on organisational commitment, but a negative significant effect on employee turnover intentions. Despite the author's contribution to knowledge, their research overlooked the effect of internal marketing on patient satisfaction. Besides, the authors concentrated on banking sector employees, disregarding healthcare professionals. Also, their research was conducted in Iran: a non-Ghanaian context.

African Community Credit Bank (CCA-Bank) in Cameroon's internal marketing strategies and customer loyalty characteristics were examined by Douanla and Simo-Mfonte (2020). In their study, 60 staff and 372 clients were

conveniently sampled from a survey that was given out in three towns: Yaoundé, Douala, and Dschang. Prior to the empirical research, an exploratory and confirmatory analysis was conducted using the structural equation modeling approach. Internal marketing, as assessed by cognitive, effective, and action loyalty, was found to have a favorable and significant impact on consumer loyalty. The investigators, however, did not take into account how internal marketing affected patient satisfaction. Additionally, they ignored the healthcare sector in favor of focusing on the banking industry. Furthermore, their study was composed in a non-Ghanaian language.

Fangue et al. (2020) investigated the impact of internal marketing on the micro finance institutions' organizational and interpersonal customer trust. Customers and workers working in second-tier microfinance in Yaoundé, Douala, and Dschang, three towns in Cameroon, made up the research population. A total of 372 consumers and 60 workers were surveyed. Confirmatory factor analysis, reliability analyses, and structural equation modeling were used to assess the survey results. The researchers discovered that internal marketing had a favorable impact on both organizational and interpersonal consumer trust. However, the researchers did not take into account how internal marketing affects patient satisfaction. Additionally, they excluded hospitals from their study and only included microfinance organizations. Moreover, their study was conducted in Cameroon: a non-Ghanaian context.

In 2020, Mero, Fernández, and colleagues examined internal marketing aspects and potential connections to organizational commitment. The authors created fieldwork based on a survey for the study. A total of 2,499

questionnaires were given out to cooperative members, managers, and leaders throughout Ecuador. The analysis of multiple linear regressions was used. The internal communication component had the strongest relationship exponent, according to the authors' research, between the internal marketing dimensions and workers' organizational commitment. Despite the authors' contributions, their research overlooked the link between internal marketing and patient satisfaction. Additionally, the healthcare industry's workforce was not taken into account in their analysis. Additionally, their study was carried out outside of Ghana, in Ecuador.

Gwinji et al. (2020) investigated internal marketing as a strategy to achieve sustainable competitive advantage in the construction industry. The research was based on a quantitative approach, which involved a sample of 260 construction managers in Johannesburg who participated through a kwiksurvey online questionnaire link. Questionnaire was used as the research instrument. Structural equation modelling and confirmatory factor analysis were applied. SPSS 23 and AMOS 24 software was employed. The authors found that internal marketing positively and significantly contributed to competitive advantage for construction firms. Despite the contribution offered by the researchers, their study disregarded the effect of internal marketing on patient satisfaction. Even more, their research considered employees in the construction sector, ignoring healthcare professional. Besides, their research was conducted in South Africa: a non-Ghanaian context.

Svensson (2020) performed a qualitative study which sought to highlight the use of internal marketing in delivering high quality service at the encounter between the frontline employees and customers in physical stores.

Data was collected through semi-structured interviews with six store managers of three different retail stores on the Swedish market. The author found that internal marketing was important and that the store managers work daily with activities to guide the frontline employees to deliver high quality service. However, these activities are not expressed as internal marketing among the companies and store managers. Yet, the author overlooked the influence of internal marketing on patient satisfaction concept. In addition, Svensson's research was written in Sweden: a non-Ghanaian context. Furthermore, the author solicited responses from frontlines employees in retail stores, ignoring healthcare frontline employees.

The breadth of knowledge and practicality of internal marketing in the insurance sector were investigated by Wijenayaka (2020). In the Sri Lankan insurance sector, the author concentrated on the connection between employee brand devotion and impressions of internal marketing. The research was quantitative in nature. 400 employees were given a questionnaire to fill out in order to collect data. Internal marketing has a favorable and considerable impact on employee brand loyalty, according to the author. Despite the Wijenayaka research's literary contribution, the author ignored the link between internal marketing and patient satisfaction. Furthermore, Wijenayaka's study ignored healthcare experts in favor of workers in the insurance sector. Furthermore, Wijenayaka's study was carried out in Sri Lanka, outside of Ghana.

The author of this thesis infers from the foregoing that teaching hospitals' internal marketing initiatives will increase patient satisfaction, in line with the assumptions of the resource-based view theory of the firm, which

sees teaching hospitals' internal marketing strategies as a resource that enables healthcare organizations to significantly satisfy patients. In other words, managers of teaching hospitals that implement correct internal marketing structures create content, knowledgeable, and satisfied staff members. This resource may also be a source of competitive advantage, which can increase patient happiness.

*H<sub>B1</sub>: There is significant relationship between welfare system and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>B2</sub>: There is significant relationship between training and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>B3</sub>: There is significant relationship between compensation and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>B4</sub>: There is significant relationship between communication and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>B5</sub>: There is significant relationship between management support and patient satisfaction among teaching hospitals in Ghana.*

### **Contextual factors and patient satisfaction among teaching hospitals in Ghana**

This section sought to examine the literatures that links the contextual factors to the patient satisfaction of teaching hospitals. Series of researches have tried to analyse the effect the contextual factors on the relationship between total quality management and patient satisfaction. For the purpose of this study, competitive intensity, market dynamism and government regulations were considered to be the components of contextual factors.

A situation where competitiveness is aggressive due to a lot of rivals and the paucity of prospects for further expansion (Auh & Menguc, 2005) is one where competitive intensity is one of the reasons causing environmental hostility (Dibrell, et al., 2007; Kumar & Subramanian, 2000). Since competitor behavior has a significant impact on performance, Auh and Menguc (2005) argue that as competition increases, a firm's performance will no longer be deterministic but stochastic. As a result, predictability and confidence decline as the level of competition rises. Businesses can function with their current systems to fully profit on the predictability of their own performance when there is little to no competition (Zuniga-Vicente and Vicente-Lorente, 2006). A business that does not prioritize its clients risk losing them to rivals. Therefore, businesses will need to adapt as the level of competition rises. Customers would experience greater pleasure if adjustments were made accordingly.

Also, change in the external environment has an impact on the innovativeness of organizations (Antoncic & Hisrich, 2001, p. 503). In fact, the firm's ability to innovate is considered as the most important factor for competitive advantage in highly dynamic market conditions (Rajapathirana & Hui, 2018, p. 44). Chang and colleagues (2012) argue that, internal organization structures of organizations in an extremely dynamic environment reveal the usefulness of innovation. Market dynamism would therefore force hospitals to make proper arrangements which would enhance the satisfaction that patients seek to achieve.

Improvement in living standard of the poor people of the developing countries is achieved by enhancing their income level or purchasing power.

The findings regarding policy and regulatory framework revealed that the legal environment was generally hostile to the SMEs in Kenya and that the government had not established enabling legal environment for institutions and their clients. The legal environment was particularly hostile to business that operated from temporary structures, as they were often dislocated from their premises by local authorities. The findings also revealed that institutions were operating under different Acts of Parliament, thus making their activities uncoordinated (O K'Aol, 2008). Government should have greater powers to allow increased participation of institutions such as in fighting against the improper treatment of patients at the hospital. Government plays a critical role regarding with hospital management. Government regulations would then influence the satisfaction that patients get.

*H<sub>C1</sub>: There is significant relationship between competitive intensity and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>C2</sub>: There is significant relationship between market dynamism and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>C3</sub>: There is significant relationship between government regulation and patient satisfaction among teaching hospitals in Ghana.*

### **Moderating role of contextual factors on the relationship between total quality management and patient satisfaction**

The literature on the influence of contextual variables on the link between overall quality management and patient satisfaction is reviewed in this section. Although contextual variables have been used as a moderator variable in previous research on other direct connections, nothing is known about the moderating effect of contextual factors on the direct association

between overall quality management and patient satisfaction. Additionally, the opinions of healthcare experts were largely disregarded in all of this research. In addition, many papers were written outside of Ghana.

Suksri et al.'s (2019) evaluation of the moderating effect of competitive intensity on the connection between competitive advantage and hotel performance serves as an example. In their study, 154 executives from 246 hotels in Thailand's Koh Samui made up the population. The data was gathered via a questionnaire. Factor analysis, correlation matrices, and hierarchical regression techniques were used to analyze the data. The authors discovered that the connection between competitive advantages and hotel performance was not significantly moderated by the level of competition. Despite their literary contribution, they ignored the competitive intensity's moderating effect on the direct relationship between overall quality management and patient satisfaction. In addition, their study was conducted in Thailand: a non-Ghanaian context. Furthermore, the authors focused on the hospitality industry, overlooking the healthcare sector.

Barbosa (2019) aimed to examine how the retail industry's dynamic and competitive environment influences the impact of big data analytics on organizational performance. The researcher found no moderating effect of competitive intensity on the direct relationship between Big Data Analytics capabilities and organizational performance in a quantitative study using structural equations modeling with 323 medium- and large-sized Brazilian retail companies. However, Barbosa's study disregarded the competitive intensity's moderating impact on the direct relationship between overall quality management and patient satisfaction. Additionally, Barbosa's study



ignored the healthcare business and focused only on the retail sector. Barbosa's study was also carried out outside of Ghana, in Brazil.

Kura et al. (2020) investigated the function of competitive intensity in modulating the links between entrepreneurial orientation, overall quality management, and SME performance, drawing on resource-based theory and general contingency theory. 714 self-administered questionnaires were given out to owner-managers of SMEs operating in Kano and Kaduna in the north-western geopolitical zone of Nigeria using a stratified random sample. Using structural equation modeling with partial least squares, the authors tested their hypothesis.

According to Kura et al. (2020), the direct correlations between entrepreneurial orientation and SME performance were tempered by competitive intensity. On the other hand, no meaningful connection between overall quality management and competitive intensity was discovered. Despite the fact that the authors added to the body of knowledge, their research ignored the competitive intensity's moderating effect on the direct relationship between overall quality management and patient satisfaction. In addition, the writers ignored the opinions of healthcare experts in favor of polling SME owner-managers. Additionally, their study was carried out outside of Ghana, in Nigeria.

According to the study results mentioned above by prior writers, there is not much literature currently available that addresses the interaction impact of overall quality management and competitive intensity on patient satisfaction. The third goal of this thesis was to investigate how patient happiness and overall quality management in Ghana's teaching hospitals relate

to one another and how competitive intensity may operate as a moderator. The author of this research project therefore anticipates that competitive intensity will moderate the direct relationship between total quality management and patient satisfaction in accordance with the assumptions of the general contingency theory. For example, intense competition among healthcare units may strengthen the direct positive relationship between total quality management and patient satisfaction, whereas a mild competitive intensity may reduce the direct effect of total quality management.

Donkor et al. (2018) looked at the interaction between market dynamism and strategic planning in relation to the performance of SMEs in Ghana. The researchers' method of choice was quantitative research. The tool for gathering data was a questionnaire. 200 SMEs engaged in manufacturing and providing services in Ghana were chosen by the researchers using purposive sampling. Multiple regression analysis using a hierarchy was done. Market dynamism, according to the researchers, strengthened the association between strategic planning and SME success in Ghana. Despite the researchers' contributions to the body of knowledge, their study ignored the market dynamism's moderating effect on the direct link between overall quality management and patient happiness. Despite the fact that their study was designed in the setting of Ghana, the researchers ignored the advice of healthcare experts and sought replies from SME executives.

The moderating effect of market dynamism on the link between competitive advantage and hotel performance was evaluated by Suksri et al. in 2019. The participants in their study were 154 executives from 246 hotels on the Thai island of Koh Samui. The data was gathered via a questionnaire.

Factor analysis, correlation matrices, and hierarchical regression techniques were used to analyze the data. The authors discovered that, with the exception of environmental performance, market dynamism greatly impacted the link between the competitive advantages and hotel performance. The researchers, however, disregarded the market dynamism's moderating influence on the direct relationship between overall quality management and patient satisfaction. They also performed their investigation outside of Ghana, in Thailand.

In South Korea, Park et al. (2019) looked into the moderating impact of market dynamism on the direct relationship between SME executive decision-making and SME company performance. The tool for gathering data was a questionnaire. Using Smart PLS software, structural equation modeling was developed to examine moderating effects. The researchers found that market dynamism greatly reduced the impact of SME CEOs' decisions on the results of their businesses. The researchers, however, disregarded the market dynamism's moderating effect on the direct relationship between overall quality management and patient satisfaction. They also performed their investigation outside of Ghana, in South Korea. In addition, the investigators took into account the viewpoints of SME leaders while ignoring those of healthcare professionals.

The aforementioned makes it evident that there is little research currently available that discusses the moderating impact of market dynamism on the direct link between overall quality management and patient happiness. Accordingly, the fourth goal of this research project aims to investigate the moderating effect of market dynamism on the relationship between total

quality management and patient satisfaction among teaching hospitals in Ghana. This is in line with the general contingency theory and the findings of previous related studies. It is predicted that when competitor and patient behavior changes are regular and hard to forecast, the direct relationship between overall quality management and patient satisfaction will be reinforced, however when these changes are irregular and simple to predict, it will be diminished.

Kim et al. (2018) looked at the moderating impacts of government supports on the direct link between perceived value and adoption intention to demonstrate the moderating influence of government assistance. The researchers discovered that government assistance in the form of financial incentives considerably increased the impact of perceived value on adoption intention. They did this by using survey data from 285 Korean drivers. Despite the researchers' substantial contributions, their study ignored the moderating impact of government regulation on the causal link between overall quality management and patient happiness. In addition, the study ignored the views of healthcare specialists and asked drivers for their opinions. Additionally, their research was carried out outside of Ghana, in Korea.

Zhao et al.'s (2019) empirical study of the link between knowledge spillover and the green economy found that environmental legislation has a moderating effect. To experimentally evaluate their model, the researchers analyzed data from the five most recent years (2012–2016) collected from various regions of China. Results indicated that the connection between knowledge diffusion and the green economy was mitigated by environmental legislation. Despite the researchers' contributions, the authors failed to

consider how government regulation may have a moderating influence on the direct link between overall quality management and patient happiness. Furthermore, their research was carried out outside of Ghana, in China.

The moderating impact of environmental legislation and policy on the link between overall quality management and sustainable performance in Malaysia's food and beverage sector was examined by Akanmu et al. in 2020. 303 food and beverage businesses in Malaysia received questionnaires. With 168 surveys returned, there was a response rate of more than 50%. The data were analyzed with PLS-SEM. The direct correlation between overall quality management and sustainable performance did not indicate a major moderating function for environmental legislation and policy, according to the authors. The moderating impact of government regulation on the direct link between overall quality management and patient satisfaction was neglected by their research, despite the fact that it added to the body of knowledge. More specifically, they ignored the healthcare market in favor of focusing on the food and beverage industry. Additionally, their study was carried out outside of Ghana, in Malaysia.

When examining the institutional framework that fueled the sustainable growth of China's industry, Yuan and Zhang (2020) presented environmental regulatory enforcement as a moderator. The authors used the sys-GMM approach to conduct an empirical test on industrial panel data from 30 provinces between 2006 and 2015. The authors found that the association between adaptable environmental policy and technological innovation was favorably mitigated by regulatory enforcement. The moderating impact of government regulation on the direct link between overall quality management

and patient satisfaction was, however, ignored by the authors. Furthermore, their research was carried out outside of Ghana, in China.

According to the aforementioned research, it is clear that there is little existent literature addressing the moderating impact of governmental regulation on the direct link between overall quality management and patient happiness. The fifth goal of this thesis is to evaluate the moderating effects of government regulations in the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana, in accordance with the assumptions of the general contingency theory and the findings of previous related studies. Strict government oversight is anticipated to considerably increase the beneficial impact of overall quality management on patient satisfaction among Ghana's teaching hospitals. Consequently, the fifth hypothesis is put forward as follows:

*H<sub>D1</sub>: There is significant moderating effect of competitive intensity on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D2</sub>: There is significant moderating effect of competitive intensity on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D3</sub>: There is significant moderating effect of competitive intensity on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D4</sub>: There is significant moderating effect of competitive intensity on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D5</sub>: There is significant moderating effect of competitive intensity on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D6</sub>: There is significant moderating effect of competitive intensity on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D7</sub>: There is significant moderating effect of competitive intensity on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D8</sub>: There is significant moderating effect of market dynamism on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D9</sub>: There is significant moderating effect of market dynamism on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D10</sub>: There is significant moderating effect of market dynamism on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D11</sub>: There is significant moderating effect of market dynamism on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D12</sub>: There is significant moderating effect of market dynamism on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D13</sub>: There is significant moderating effect of market dynamism on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D14</sub>: There is significant moderating effect of market dynamism on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D15</sub>: There is significant moderating effect of government regulation on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D16</sub>: There is significant moderating effect of government regulation on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D17</sub>: There is significant moderating effect of government regulation on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D18</sub>: There is significant moderating effect of government regulation on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D19</sub>: There is significant moderating effect of government regulation on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>D20</sub>: There is significant moderating effect of government regulation on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.*



*H<sub>D21</sub>: There is significant moderating effect of government regulation on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.*

### **Mediating effect of internal marketing in the relationship between total quality management and patient satisfaction**

This section reviews literature on the mediating role of internal marketing in the relationship between total quality management and patient satisfaction, grounded in the affective events theory. As there is a paucity of literature on the mediating role of internal marketing on the direct relationship between total quality management and patient satisfaction, this study reviews other related variables that have been used by earlier authors as mediators in this direct relationship.

Abadi et al. (2018) examined the mediating role of service quality in the relationship between total quality management and patient satisfaction drawing on responses from a sample of 398 patients in the city of Makassar in Indonesia. Results of structuring equation modeling showed that service quality mediated the relationship between total quality management and patient satisfaction, such that high service quality strengthened the positive effect of total quality management on patient satisfaction, while low service quality weakened this direct relationship. However, the authors overlooked the mediating role of internal marketing in total quality management–patient satisfaction relationship. Moreover, Abadi et al.’s research was conducted in Indonesia: a non-Ghanaian context.

Zaid et al. (2020) analysed the mediating role of perceived service quality in the direct relationship between total quality management and patient

satisfaction. Research approach was quantitative. Patients of 40 selected hospitals in the region of West Bank in Palestine were targeted. Responses from 210 patients were analysed using PLS-SEM approach via Smart PLS 3.2.9. The result found that perceived service quality partially mediated the positive direct effect of total quality management on patient satisfaction, such that high perceived service quality enhanced the positive effect of total quality management on patient satisfaction, while low service quality damaged this direct relationship. Despite the contribution offered to the body of knowledge, the authors overlooked the mediating role of internal marketing in total quality management–patient satisfaction relationship. Moreover, their research was conducted in Palestine: a non-Ghanaian context.

Gleaning from the views of the research findings above, it is clear that research on the mediating role of internal marketing on the direct relationship between total quality management and patient satisfaction is hard to find. Existing studies have employed service quality as a mediating variable. Underpinned by the affective events theory and based on the findings of closely related studies above, the writer of this research project anticipates that internal marketing would mediate the positive relationship between total quality management and patient satisfaction, such that greater internal marketing efforts may strengthen the positive effect of total quality management on patient satisfaction, while little internal marketing activities may weaken this direct relationship. Consequently, the second hypothesis is put forward as follows:

*H<sub>E1</sub>: There is significant mediating effect of welfare system on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E2</sub>: There is significant mediating effect of welfare system on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E3</sub>: There is significant mediating effect of welfare system on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E4</sub>: There is significant mediating effect of welfare system on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E5</sub>: There is significant mediating effect of welfare system on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E6</sub>: There is significant mediating effect of welfare system on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E7</sub>: There is significant mediating effect of welfare system on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E8</sub>: There is significant mediating effect of training on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E9</sub>: There is significant mediating effect of training on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E10</sub>: There is significant mediating effect of training on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E11</sub>: There is significant mediating effect of training on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E12</sub>: There is significant mediating effect of training on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E13</sub>: There is significant mediating effect of training on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E14</sub>: There is significant mediating effect of training on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E15</sub>: There is significant mediating effect of compensation on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E16</sub>: There is significant mediating effect of compensation on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E17</sub>: There is significant mediating effect of compensation on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E18</sub>: There is significant mediating effect of compensation on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E19</sub>: There is significant mediating effect of compensation on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E20</sub>: There is significant mediating effect of compensation on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E21</sub>: There is significant mediating effect of compensation on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E22</sub>: There is significant mediating effect of communication on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E23</sub>: There is significant mediating effect of communication on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E24</sub>: There is significant mediating effect of communication on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E25</sub>: There is significant mediating effect of communication on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E26</sub>: There is significant mediating effect of communication on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E27</sub>: There is significant mediating effect of communication on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E28</sub>: There is significant mediating effect of communication on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E29</sub>: There is significant mediating effect of management support on the relationship between management leadership and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E30</sub>: There is significant mediating effect of management support on the relationship between benchmarking and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E31</sub>: There is significant mediating effect of management support on the relationship between continuous process improvement and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E32</sub>: There is significant mediating effect of management support on the relationship between service design and patient satisfaction among teaching hospitals in Ghana.*

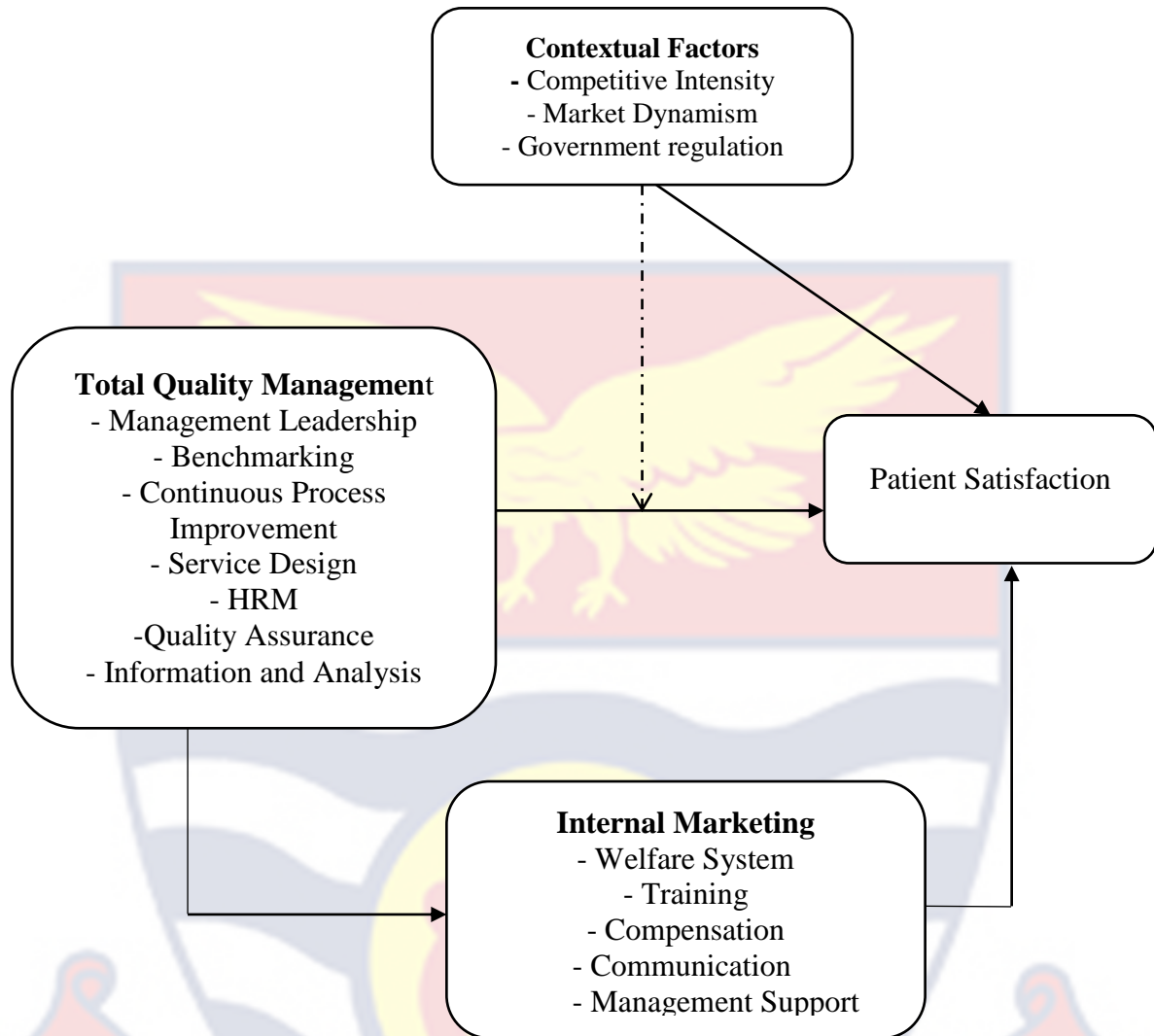
*H<sub>E33</sub>: There is significant mediating effect of management support on the relationship between human resource management and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E34</sub>: There is significant mediating effect of management support on the relationship between quality assurance and patient satisfaction among teaching hospitals in Ghana.*

*H<sub>E35</sub>: There is significant mediating effect of management support on the relationship between information and analysis and patient satisfaction among teaching hospitals in Ghana.*

### **Conceptual Framework**

This study seeks to assess the mediating role of internal marketing and moderating role of contextual factors in the direct relationship between total quality management and patient satisfaction in Ghanaian teaching hospitals. This section presents the conceptual framework, which is a diagram that explains the writer's idea on how the study is explored (Figure 1). Three theories are integrated in drawing this framework. They are the resource-based theory of a firm, affective events theory, and general contingency theory. Based on review of related literature, the framework was developed.



*Figure 1: Conceptual Framework*

Source: Author's Construct, Tweneboah-Koduah (2022)

To explain, the resource-based theory of a firm is used to explain the proposed positive and significant relationship between total quality management and patient satisfaction (Hypothesis 1). The resource-based theory was used to explain the relationship between internal marketing and patient satisfaction (Hypothesis 2). Similarly, the relationship between contextual factors and patient satisfaction (Hypothesis 3). Successively, the affective events theory is employed to elucidate the possible mediating role of internal marketing (Hypothesis 5) in the direct relationship between total quality management and patient satisfaction. Subsequently, the general



contingency theory is deployed in explicating the likely moderating effect of contextual factors (Hypothesis 4), over the direct relationship between total quality management and patient satisfaction.

Therefore, in this conceptual framework, patient satisfaction is used as the target endogenous latent construct, while the exogenous latent constructs are total quality management and each of the contextual factors, namely competitive intensity, market dynamism, and government regulation. Internal marketing serves as a mediator; hence it is both an exogenous and endogenous latent construct. Said differently, Figure 1 described one direct relationships (Hypothesis 1, Hypothesis 2, and Hypothesis 3), one moderating relationship (Hypothesis 4), and moderating effects (Hypothesis 5).

### **Chapter Summary**

This chapter covered the literature review of this study. The review was organised under four broad headings, namely: theoretical review, conceptual review, empirical review, and conceptual framework. Under the theoretical review, three relevant theories were integrated in addressing all the five hypotheses formulated for this study. These three theories were the resource-based theory, affective events theory, and general contingency theory. Under the conceptual review section, six concepts were reviewed. These were total quality management, patient satisfaction, internal marketing, competitive intensity, market dynamism, and government regulation. Following the conceptual review, the empirical review was presented and organised under five themes, which were in consonance with the five hypotheses set in this study. Then, the conceptual framework of this was offered.

## CHAPTER THREE

### RESEARCH METHODS

#### Introduction

In teaching hospitals in Ghana, this study aimed to evaluate the mediating impact of internal marketing and the moderating influence of contextual variables in the link between overall quality management and patient satisfaction. The research methodology, research approach, study design, study organizations, population, sample size, ethical considerations, data collection instruments, pre-testing, factor analysis, reliability and validity tests procedures, data processing and analysis, and chapter summary were all covered in this chapter.

#### Research Philosophy

What a researcher believes to be truth, reality, and knowledge is their research philosophy. It defines the principles and beliefs that direct a research study's design, data gathering, and analysis (Ryan, 2018). Every researcher has the freedom to select their own methodologies, techniques, and procedures, according to Creswell and Clark (2017). However, the researcher must make sure that the paradigm suits the requirements and goal of his or her study when deciding which philosophical ontology, epistemology, and technique to use (Opoku-Mensah, 2016). According to Bryman (2008), ontology is a researcher's set of beliefs about what constitutes reality and what constitutes fact. Our conception of how we could learn to know the universe is known as epistemology. According to Ryan (2018), the foundation of research should include the ability to defend the choice to accept a particular ideology.

The positivist philosophical paradigm was used in this investigation. Empiricism and foundationalism lead to positivism. According to foundationalists, theories should be validated by controlled, value-free experiments or observations. According to foundationalism, accurate knowledge should not be capable of error (Howell, 2013). For instance, foundationalists might contend that gravity's existence is undeniable. The idea that information should be impartial and free from any prejudice resulting from the researcher's attitudes and ideas is known as empiricism, one of two foundationalist philosophical schools (Phillips & Burbules, 2000). Positivists emphasize objectivism and the ability to prove or refute theories.

According to objectivism, there is only one version of reality, independent of the researcher's viewpoint, and the only way to discover this truth and obtain "credible" data is to measure or observe the world with the least amount of interference from the researcher and other variables (Ryan, 2018). According to the quantitative research method, an experiment is used to test a theory once it has been developed and predictions based on it have been made (Bryman, 2008). In order to generate knowledge, positivists often use the scientific method (Rahi, 2017).

For instance, if a new patient exhibits a variety of symptoms, the doctor would evaluate the patient, consider the possibilities in light of the evidence, and then investigate those using the proper diagnostic procedures until coming to the correct conclusion that the patient has an infection, such as novel Covid-19. The positivist philosophical paradigm was found acceptable and, as a result, selected by the investigator given that this study is quantitative

in character, theoretically limited, includes testing hypotheses, deductive in reasoning, objective, and predictive in nature.

### **Research Approach**

There are three different sorts of research methodologies: mixed, qualitative, and quantitative. Natural sciences are the most common fields to apply quantitative investigations, which are often based on data that can be numerically assessed (Leppink, 2016). It is a research methodology that focuses on the creation of ideas and testable hypotheses that may be used to many domains (Howell, 2013; Bryman, 2008). According to Burns and Burns (2008), the quantitative approach emphasizes the dependability principle and statistical compartmentalization. The quantitative research technique often employs surveys, questionnaires, and standardized research instruments (Creswell & Creswell, 2017).

The use of systematic processes and methodologies underpins the qualitative research methodology, which incorporates the researcher's subjective viewpoint into the results and recommendations (Crotty, 1998). Understanding why and how things (such as sickness, health, and diseases) happen, rather than merely what, where, and when, is the foundation of this type of study. These might be cited as the justifications for why exploratory investigations are best conducted using a qualitative research technique (Rahman, 2017). This is due to the emphasis placed on smaller units of samples as opposed to bigger samples to aid in a more thorough investigation and analysis of the issue at hand (Leppink, 2016).

A qualitative research project continuously creates an all-encompassing, holistic picture, analyzes language, presents the informants' in-

depth perspectives, and performs the study in a natural environment (Creswell & Clark, 2017). Case studies, interview guides, and reviews are just a few of the many instruments employed in qualitative research methodologies. This strategy gives one the chance to see the problem for oneself (Bryman, 2017). Additionally, it highlights the value of holistic analysis and diverse meaning structures (Burns & Burns, 2008). As a result, it is employed when a deeper comprehension or significance of a particular event or circumstance is required (Denzin & Lincoln, 2011).

In a single study or series of studies, the mixed methods research focuses on gathering, analyzing, and combining both quantitative and qualitative data (Creswell & Clark, 2011). Its fundamental tenet is that combining quantitative and qualitative methods yields a greater grasp of study issues than each method by itself (Leppink, 2016). Researchers advise that the research methodology utilized should take into account the study's goals (Leppink, 2016; Yin, 2017), the investigator's expertise (Yin, 2017), and the kind and standard of the data that will be gathered (Jick, 1979).

The quantitative research technique was chosen for this study because the goals of the research were to test predictions-based hypotheses, and the investigator wanted to gather a lot of data that could be quantified. The fact that data from a wider sample are merged to provide a greater coverage of a sequence of occurrences is one of the numerous benefits of a quantitative research technique (Amarantunga & Baldry, 2002). Additionally, the use of statistical data analysis techniques is improved by the quantitative approach, which makes it simpler to generalize the study's conclusions (Creswell & Creswell, 2017). Quantitative methods also lead to a clearer conclusion from

conjecture. This is so that they may be applied in the future and compared to other efforts as the conclusions are often based on quantitative measurements rather than simple interpretation (Bryman, 2017).

The study also chose quantitative approach because Quantitative research is designed to produce objective and replicable results. By using standardized data collection methods and statistical analyses, researchers can minimize biases and subjectivity, enhancing the reliability of the findings. Also, the quantitative approach allows researchers to collect data from large samples, increasing the potential for generalizability. With a representative sample, the findings can be applied to a broader population, making the research outcomes more applicable to real-world situations. Finally, quantitative research is well-suited for investigating causal relationships between variables. By using experimental or quasi-experimental designs, researchers can manipulate independent variables and observe their effects on dependent variables, enabling them to establish cause-and-effect relationships.

### **Research Design**

Most studies fall into one of three categories: exploratory, descriptive, or causal (also known as explanatory). Each has a distinct final function and can only be applied in a certain manner (Malhotra & Malhotra, 2012). An exploratory research approach prioritizes the development of concepts and insights over gathering data that is statistically correct. Open-ended inquiries are the most prevalent type of exploratory research inquiry. Although text replies may not be statistically measurable, they will provide you with higher-quality data that may help you identify new projects or issues that need to be

fixed (Yin, 2017). Typically, exploratory research is conducted using surveys, focus groups, case studies, and literature reviews (Darabi, 2007).

Descriptive research, in contrast to exploratory research, is pre-planned and organized in design, allowing for the statistical inference of population-level information from the data gathered. The major goal of this kind of study is to clarify a group of people's beliefs, attitudes, or behaviors towards a certain topic (Robson, 1993). Due of its quantitative character, it is seen as being of a conclusive nature. It is regarded as descriptive study since respondents must select from predetermined categories. These inquiries won't provide the in-depth understanding of the problems that exploratory study would.

Instead, creating groups based on specified options will produce data that may be statistically inferred. This enables the researcher to evaluate the data's importance for the study's whole population as well as the evolution of respondents' opinions, attitudes, and behaviors over time (Bryman & Bell, 2015). Research is required to characterize a particular occurrence, as well as to make sense of and explain its underlying characteristics (Huczynski & Buchana, 2004). Descriptive research, however, needs to be viewed as a tool rather than a goal in and of itself (Yin, 2017).

Causal or explanatory research is quantitative in character, preplanned, and organized in design, much like descriptive research. It is also regarded as conclusive study because of this. Descriptive research does not seek to explain the cause-and-effect relationship between variables, whereas explanation research does. This is in contrast to the observational technique of descriptive research since it makes an effort to determine through testing if a link is

causal. Causal research will ultimately aim to accomplish two things. Understanding which variables are causes and which variables are effects is the first step. The second is figuring out how the causative factors relate to the expected outcome (Yin, 2017). The explanatory research design was used for this study because its goals were to explain the relationships between the variables of interest.

Additionally, researchers might examine causal links between variables using an explanatory study approach. The establishment of cause-and-effect correlations by changing independent variables and analyzing the impacts on dependent variables allows researchers to gain a better understanding of the variables that affect certain outcomes. Explanatory study aids in elucidating connections between variables found in earlier research or theoretical frameworks. It enables scientists to put ideas and hypotheses to the test, supplying data to confirm or deny preexisting interpretations for observable occurrences.

Moreover, explanatory research helps clarify relationships between variables that have been identified in previous studies or theoretical frameworks. It allows researchers to test hypotheses and theories, providing evidence to support or refute existing explanations for observed phenomena. Explanatory research seeks to uncover the underlying mechanisms or processes that drive certain outcomes. It delves into why certain phenomena occur, shedding light on the underlying mechanisms at play. By establishing causal relationships, explanatory research designs can have predictive power. The knowledge gained from understanding cause-and-effect relationships can help predict future outcomes or behaviors based on changes in specific



variables. This explains why explanatory is appropriate to analyse the relationship between total quality management, contextual factors, internal marketing and patient satisfaction.

### **Study Design**

According to Saunders and Lewis (2012), a study design is a broad strategy for how the researcher would approach addressing the research objectives. There are many different kinds of research designs, and different academics categorize them in various ways. For instance, experiments, surveys, case studies, action research, grounded theory, ethnography, and archival research are all mentioned by Saunders and Lewis (2012). A study design, according to Bryman and Bell (2015), is one of five different types of research designs, including experimental, cross-sectional, longitudinal, case study, and comparative designs. According to Yin (2017), there are three factors to take into account when selecting a research design: the kind of aim, the degree of control an investigator has over real behavioral occurrences, and the degree of attention on current events as opposed to historical ones.

Therefore, the cross-sectional study design was chosen as the study design for this study due to the type of research objectives established (regression-based, path modeling), the researcher's limited control over actual behavioral events, and the researcher's high degree of focus on contemporary as opposed to historical events. The cross-sectional research approach gathers quantitative information at a single moment in time.

### **Study Organisations**

This study was conducted in all five teaching hospitals in Ghana. Teaching hospitals play important roles in quality healthcare delivery in

Ghana. As apex health facilities, teaching hospitals provide a leading role in setting high quality clinical standards at all levels of the health sector (Muga et al., 2005). To comprehensively achieve these objectives of leading and setting health standards, all the teaching hospitals in Ghana have forged a common front, and work in unionism with the Ghana Health Service to provide seamless care and service to patients and patients' friends and relatives across all levels of service delivery. The five teaching hospitals are Korle-Bu Teaching Hospital, Komfo Anokye Teaching Hospital, Tamale Teaching Hospital, Cape Coast Teaching Hospital, and Ho Teaching Hospital (Ghana Health Service, 2021).

#### **Korle-Bu teaching hospital**

The Korle Bu Teaching Hospital, which is in Accra and was founded on October 9, 1923, has expanded from its original 200 beds to around 2,000 beds. Currently, it is Ghana's top national referral center and the third-largest hospital in Africa. There are 17 clinical and diagnostic departments and facilities within the hospital. There are around 250 patient admissions each day, with an average daily attendance of 1,500 people. Medicine, Child Health, Obstetrics and Gynecology, Pathology, Laboratories, Radiology, Anaesthesia, Surgery, Polyclinic, Accident Center, Surgical/Medical Emergency, and Pharmacy are the hospital's clinical and diagnostic divisions. (Korle-Bu Teaching Hospital, 2021a) Additional departments include finance, engineering, the human resource directorate, the medical secretariat, teaching relations, and general administration.

The hospital offers advanced, scientific investigative techniques as well as specialization in a number of disciplines, including neurosurgery,

cardiothoracic surgery, pediatric surgery, dentistry, ophthalmology, ENT, renal, orthopedics, oncology, dermatology, radiotherapy, radio diagnosis, reconstructive plastic surgery, and burns. Particularly the National Centre for Radiotherapy and Nuclear Medicine, the National Cardiothoracic Centre, and the National Reconstructive Plastic Surgery and Burn Centre all receive a large portion of their patients from nearby nations like Burkina Faso, Nigeria, and Togo. One of the few hospitals in Africa where complex laboratory tests are done is this one. Keyhole operations and brachytherapy for the treatment of prostate cancer are further specialized treatments offered by the hospital (Korle-Bu Teaching Hospital, 2021a).

In order to fulfill its vision and mission, Korle-Bu Teaching Hospital strives to: increase the technical and managerial skills, knowledge, competences, and capabilities of all staff; increase staff morale, commitment, and satisfaction through motivation; increase the hospital's ability to attract and retain adequate and competent staff; and make effective use of the university's resources.

### **Komfo Anokye teaching hospital**

The Ashanti Region's capital, Kumasi, is where you will find the Komfo Anokye Teaching Hospital. Following the founding of the School of Medical Sciences (SMS) of the Kwame Nkrumah University of Science and Technology, Kumasi in 1975, the hospital was converted into a teaching hospital for the training of medical students. The hospital has a 1,200-bed capacity and employs roughly 4,000 employees from a variety of professional backgrounds who provide high-quality clinical and non-clinical treatment as well as training to Ghanaians and others. Out of Ghana's 16 administrative

regions, the hospital receives direct referrals from 12 of them, including Ashanti, Bono, Bono East, Ahafo, Western North, Savannah, Northern, North East, Upper East, Upper West, and certain areas of Central and Eastern Regions (Komfo Anokye Teaching Hospital, 2021).

The hospital has been broken down into 15 Directorates, consisting of 13 clinical Directorates and two non-clinical Directorates for ease of administration and specialization. Additional clinical and non-clinical directorates are included. The clinical directorates are: Intensive Care Directorates, Laboratory Services, Radiology, Oral Health and Anaesthesia, Emergency Medicine, Surgery, Trauma and Orthopaedics, Medicine, Obstetrics and Gynecology, Child Health and Family Medicine, Oncology, Eye, Ear, Nose and Throat. Domestic Services and Technical Services are the non-clinical directorates. In order to realize its mission, Komfo Anokye Teaching Hospital strives to thrive as a provider of specialized medical treatment. Its goal is to satisfy all of its customers' demands and expectations by offering high-quality services. The finest practices and new thinking will be applied by motivated and dedicated employees to achieve this purpose (Komfo Anokye Teaching Hospital, 2021).

### **Tamale teaching hospital**

On August 12th, 1998, Tamale Teaching Hospital officially opened for business. With the start of the School of Medical Sciences at the University of Development Studies, the hospital has been renamed Tamale Teaching Hospital. In June 2013, the Teaching Hospital graduated its initial class of medical students. The hospital is a 484-bed referral facility located in Northern Ghana that offers medical care to residents of Tamale and the surrounding

areas. The Upper East and Upper West Regions, sections of the Brong-Ahafo Region, and the Northern Parts of the Volta Region are all located in the northern part of the country, and it also acts as the primary referral center for those areas. Additionally, the hospital sees patients from a few regions of Togo and Burkina Faso. The hospital is situated in the eastern region of Tamale Metropolis and serves about 100,000 patients annually (Tamale Teaching Hospital, 2021).

### **Cape Coast teaching hospital**

The present-day Central Regional Hospital A referral hospital with a 400-bed capacity, Cape Coast Teaching Hospital is located in Cape Coast's northern region. On the north, it shares a border with Abura Township; on the south, it has a border with Pedu Estate/4th Ridge; on the east, Nkanfua; and on the west, Abura/Pedu Estate. With the opening of the School of Medical Sciences at the University of Cape Coast, the hospital began full operations on August 12th, 1998 and was renamed Cape Coast Teaching Hospital. Similar to the Tamale Teaching Hospital, the Cape Coast Teaching Hospital graduated its first class of medical students in June 2013. The hospital aspires to be a top-tier innovator in research, medical education, and tertiary healthcare (Cape Coast Teaching Hospital, 2021).

The Cape Coast Teaching Hospital houses medical students from the University of Cape Coast and functions as a national learning hub for many nursing academies. The hospital benefits from a talented and dedicated staff of nurses who work tirelessly to save lives and advance the institution's mission. Paediatric Ward, Surgical Suite, Female Surgical Ward, Male Surgical Ward, Recovery Ward, Intensive Care Unit, Theatre, Executive Ward, Medical

Ward, Dialysis Unit, Neonatal Intensive Care Unit, Delivery Suite, Accident and Emergency, Out-Patient Department, and Obstetrics and Gynecology are a few of the hospital's departments and units. Renal Center, Radiology Department, Diabetic Unit, and Teaching Health Unit are a few examples of special departments or units. The hospital may take pride in having special amenities including a magnetic resonance imaging (MRI) machine and a computerized tomography (CT) scanner (Cape Coast Teaching Hospital, 2021).

### **Ho teaching hospital**

The capital city of the Volta Region, Ho, is home to the ultramodern, cutting-edge regional referral hospital operated by the government. It was built by UK-based Kaevener Construction International, turned over to the government of Ghana in November 1998, and small-scale service delivery started in April 1999. With a 240-bed capacity and a prime location to serve the residents of the Volta Region and beyond, the hospital was officially opened by the former president John Jerry Rawlings and his wife in December 2000 (Ministry of Health, 2021).

The hospital has been providing services in the area for 20 years and receives patients from the Federal Republic of Nigeria, the Republic of Togo, and Benin. The hospital underwent a rigorous certification procedure by all the health professional regulatory bodies and the Health Facilities Regulatory Authority before being re-commissioned as a teaching hospital on April 29, 2019. With its new position as a teaching hospital, it will be able to provide the best tertiary healthcare, medical education, and research for medical tourists (Ministry of Health, 2021).

## Population

A population, according to Rubin and Babbie (2001), is the theoretically defined collection of research components. Malhotra (1996) argues that a population's members or units should be in possession of pertinent information to the investigation and the researcher. For this reason, the population of the study consisted of all categories of regular healthcare workers employed by all five teaching hospitals in Ghana. These workers included managers, administrators, nurses, doctors, pharmacists, and pharmacist technicians, as well as members of the accounts staff, laboratory technicians, and physiotherapy staff.

For the purposes of this study, frontline healthcare employees were defined as those within this population who have frequent and direct patient contact, such as doctors, nurses, pharmacists and pharmacy technicians, midwives, laboratory technicians, security guards, accounts clerks, and record officers. All patients at the five teaching hospitals' outpatient departments (OPDs) who will be getting care at the time of data collection were included in the study's population. Table 1 presents demographic data for each of the five teaching hospitals, including total healthcare workers, frontline healthcare workers, and the average number of OPD visits each day.

**Table 1: Population of the Study**

Teaching Hospital	Total healthcare employees	Frontline healthcare employees	Average OPD attendance per day
Korle-Bu Teaching Hospital (KBTH)	6,590	3,919	834
Komfo Anokye Teaching Hospital (KATH)	5,280	2,995	648
Tamale Teaching Hospital (TTH)	2,790	1,515	217
Cape Coast Teaching Hospital (CCTH)	1,792	1,246	344
Ho Teaching Hospital (HTH)	1,141	758	358
Total	17,593	10,433	2,401

Source: Ghana Health Service (2022)

Thus, the population of this study consisted of 2,401 patients, 17,593 healthcare workers, 10,433 of whom work in frontline positions, and 17,593 healthcare workers (Ghana Health Service, 2022). The OPD is the area of teaching hospitals where patients get medical consultations and other ancillary services including medical exams, diagnostics, and pharmaceutical services. Patients frequently attend the OPD as their initial point of contact with the hospital, and it is at this point that they start to assess and provide feedback on the care they receive. Outpatients are favored over inpatients since inpatients typically have serious illnesses that need admission to the hospital for an overnight stay or a longer stay, making it difficult for them to reply to a questionnaire.

On Thursday, June 15, 2021, information for the study's population—which is represented in Table 1—was collected from the Ghana Health Service Headquarters in Accra. Table 2 provides specifics on the statistics of the front-line healthcare workers. All healthcare workers who were working at their posts at the time of data collection made up the sampling frame for this



study. The sample frame also includes outpatients who sought medical attention at one of the five teaching hospitals during the data collecting period.

**Table 2: Details of the Statistics of the Frontline Healthcare Employees**

	KBTH	KATH	TTH	CCTH	HTH
Doctors	590	601	132	291	67
Professional Nurses	2147	1525	889	643	394
Enrolled Nurses	482	229	169	70	128
Midwives	405	403	195	164	113
Pharmacists	97	55	21	18	19
Pharmacy Technicians	58	51	27	7	2
Laboratory technicians	68	61	31	17	12
Security Guards	35	33	28	18	11
Record Officers	24	18	14	12	8
Accounts Clerks	13	19	9	6	4
Total	3,919	2,995	1,515	1,246	758

Source: Ghana Health Service (2022)

### Sample Size and Sampling Procedure

This study used the sample size formula for a known population suggested by Krejcie and Morgan (1970) to determine sample sizes. According to Krejcie and Morgan, under a population proportion of 50% and a confidence level of 95%, minimum sample sizes of 376 healthcare employees, 370 frontline healthcare employees, and 331 patients are appropriate for a known target population of 17,593 healthcare employees, 10,433 frontline healthcare employees, and 2,401 patients, respectively. In order to get a balanced data for all the groups underpinning the study (frontliners, employees and patients), the appropriate samples for the study were 468 respondents. The study therefore used a total sample size of 468 respondents. Making different respondents answer different questions in research is a common practice that

can be justified for several reasons. Different respondents may have varying expertise or experiences related to the research topic.

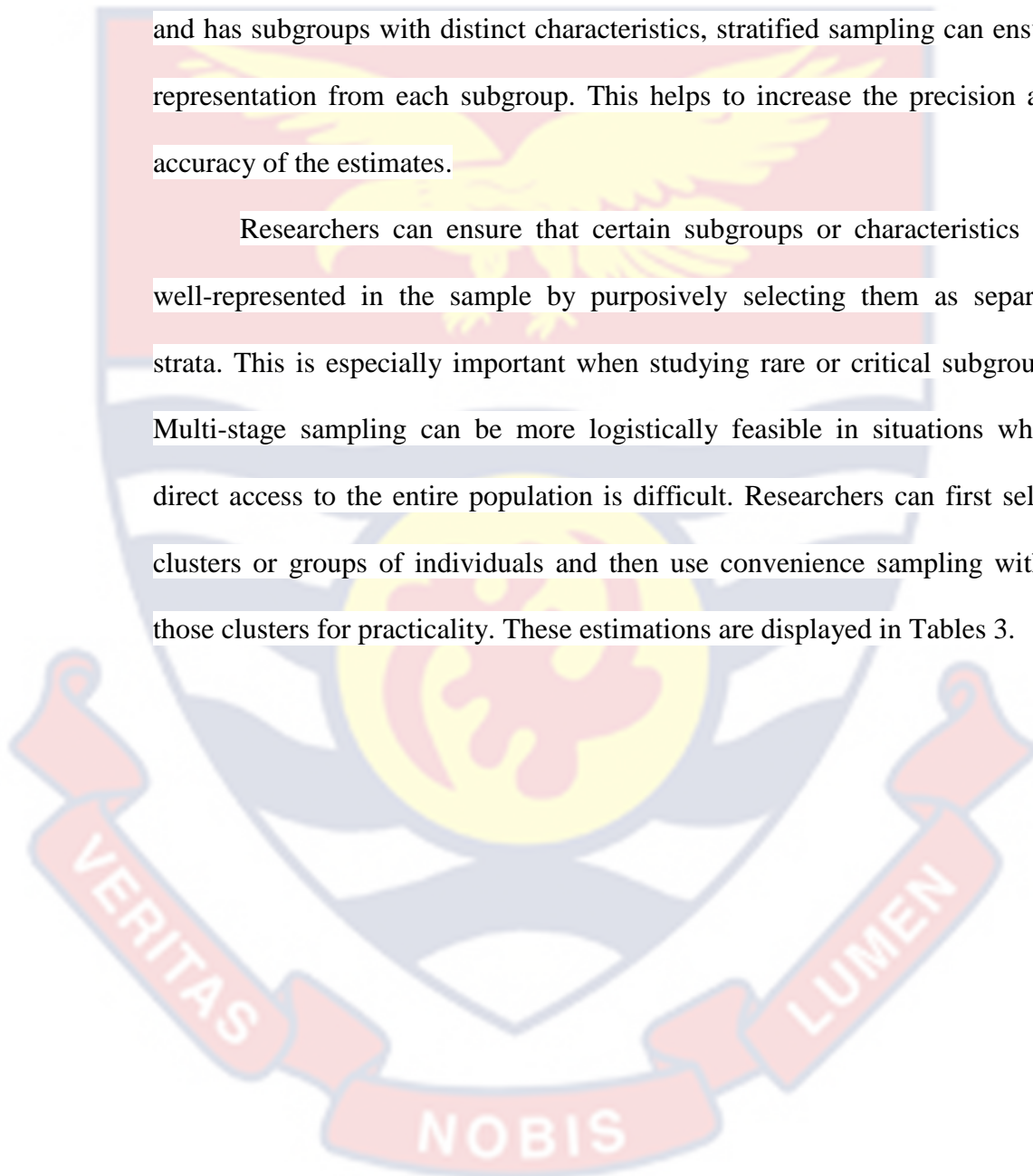
Tailoring questions to specific groups allowed the researcher to obtain targeted and relevant information that aligns with the focus of the study. Also, by asking different questions to different respondents, researchers can avoid redundancy and obtain precise data more efficiently. Each respondent provided insights into specific aspects of the research, leading to a comprehensive understanding of the topic. Finally, using diverse sets of questions for different respondents enables researchers to gather a wide range of data. This approach facilitates the exploration of various perspectives and ensures that no crucial aspect of the research is overlooked.

The multi-stage sampling approach, which comprises sampling at two or more stages, was used in the selection of the sample procedure. The proportionate stratified sampling approach was used in the first step to demonstrate how the 480 patients, 481 frontline healthcare workers, and 489 healthcare staff were chosen to produce a full stratified sample. This method gave every front-line healthcare worker, patient, and employee from Ghana's five teaching hospitals an equal and independent chance of selection, enhancing its accuracy and representativeness.

Multi-stage sampling is a complex sampling technique that involves selecting samples in multiple stages or phases. Two common stages used in multi-stage sampling are stratified sampling and convenience sampling. Researchers chose multi-stage sampling with stratified and convenience sampling techniques for various reasons, depending on the research objectives and practical considerations. Multi-stage sampling is especially useful when

dealing with a large and diverse population. By dividing the population into strata based on relevant characteristics (stratified sampling), researchers can reduce the size of the sampling frame, making data collection more manageable and cost-effective. In cases where the population is highly diverse and has subgroups with distinct characteristics, stratified sampling can ensure representation from each subgroup. This helps to increase the precision and accuracy of the estimates.

Researchers can ensure that certain subgroups or characteristics are well-represented in the sample by purposively selecting them as separate strata. This is especially important when studying rare or critical subgroups. Multi-stage sampling can be more logistically feasible in situations where direct access to the entire population is difficult. Researchers can first select clusters or groups of individuals and then use convenience sampling within those clusters for practicality. These estimations are displayed in Tables 3.



**Table 3: Proportional Stratified Sampling of Respondents**

Strata	Teaching Hospital	Population	Estimation	Sample Size
Healthcare Employees	KBTH	6,590	(6,590/17,593)*489	183
	KATH	5,280	(5,280/17,593)*489	147
	TTH	2,790	(2,790/17,593)*489	77
	CCTH	1,792	(1,792/17,593)*489	50
	HTH	1,141	(1,141/17,593)*489	32
	Total	17,593	—	489
Frontline Healthcare Employees	KBTH	3,919	(3,919/10,433)*481	181
	KATH	2,995	(2,995/10,433)*481	138
	TTH	1,515	(1,515/10,433)*481	70
	CCTH	1,246	(1,246/10,433)*481	57
	HTH	758	(758/10,433)*481	35
	Total	10,433	—	481
Patients	KBTH	834	(834/2,401)*480	167
	KATH	648	(648/2,401)*480	130
	TTH	217	(217/2,401)*480	43
	CCTH	344	(344/2,401)*480	69
	HTH	358	(358/2,401)*480	71
	Total	2,401	—	480

Source: Author's Computation, Tweneboah-Koduah (2021)

In the second stage, the investigator used convenience technique to select the required number of healthcare workers, frontline healthcare employees and patients from each of the five teaching hospitals based on the estimation in Table 3. Convenience sampling, according to Anderson et al. (2014), is a type of non-probability or non-random sampling where members of the target population meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study. In the healthcare sector, where not all healthcare workers are usually at post within a particular period of time, due to shift-based working, official assignments and off-days, the convenience sampling technique is deemed appropriate and therefore adopted. In addition, some healthcare professionals may be busy,

such that they may not be available for the study, and in such cases, convenience sampling is recommended.

### **Ethical Considerations**

Prior to collecting data, a formal approval was requested from the University of Cape Coast's Institutional Review Board. The right to privacy, anonymity, and secrecy of information were further ethical factors. Regarding voluntary participation, each respondent was free to choose whether or not to take part in the data gathering exercise. By allowing respondents to complete the surveys on their own, potential privacy concerns were also realized, and a suitable channel was established for handling questions that were ambiguous.

Additionally, respondents were prohibited from submitting specific information about themselves on the questionnaire, such as names, contact information, and home locations, in order to address the concern of anonymity. Additionally, respondents were given the assurance that none of their names will be revealed to the public or utilized for anything outside this study. Finally, the study secured information confidentiality by promising respondents that their input would be kept private. Additionally, they received the assurance that none of the data would be used against them. It was up to the respondents whether or not to participate in the study. A responder received no material incentive to encourage participation.

### **Data Collection Instruments**

Three sets of questionnaires were designed for respondents. The first questionnaire measured total quality management and the contextual factors (Appendix A), which is to be completed by all categories of employees in the five teaching hospitals in Ghana, because, total quality management and

contextual factors require the participation of all those working under the leadership. The indicators of this questionnaire are rephrased to suit the hospital setting. Total quality management was made of five sub-dimensions, namely management leadership (five items), benchmarking (nine items), continuous process improvement (4 items), service design (five items), human resource management (four items), quality assurance (six items) and information and analysis (four items), making a total of 37 items.

The indicators used to measure the aspects of total quality management came from a variety of sources, including management leadership (Brah et al., 2002), benchmarking (Brah et al., 2002), continuous process improvement (Rao, 2006), service design (Brah et al., 2002), human resource management (Brah et al., 2002), quality assurance (Abdous, 2009), and information and analysis (Anderson & Sohal, 1999). The measurement sources for the contextual elements include market dynamism (Jaworski & Kohli, 1993), competitive intensity (Jansen et al., 2006), and government regulation (Pryor-Frederic, 2002). A 7-point Likert-type scale with the values 1 = least agreement, 2 = less agreement, 3 = little agreement, 4 = moderate agreement, 5 = strong agreement, 6 = more agreement, and 7 = strongest agreement was used to anchor the indicators that examined total quality management and the contextual elements. Sex, age in years, age in years, sex, and the name of the teaching hospital are the background details needed.

The second questionnaire, commonly referred to as the frontline employees, was created to collect data from staff members who have frequent and direct interaction with patients (Appendix B). These staff members, who offer direct patient care, include physicians, nurses, pharmacists and pharmacy

technicians, midwives, laboratory technicians, accounts clerks, record officers, and security guards. The security officers greet and welcome patients as they arrive, check to see that they are following COVID-19 regulations, and assist them in navigating the facility.

Patients are welcomed by the record officers, who then give them folders and patient IDs. Patients are cared for by nurses and physicians in the OPD, wards, and operating rooms. Direct medication dispensing to patients is done by pharmacists and pharmacy techs, etc. According to Kim et al. (2016), there are five elements that make up internal marketing: welfare systems (four things), training (three items), remuneration (three items), communication (three items), and management support (three items). All 16 internal marketing questions are anchored on a 7-point Likert-type scale, where 1 indicates the least agreement, 2 indicates less agreement, 3 indicates little agreement, 4 indicates moderate agreement, 5 indicates strong agreement, 6 indicates even stronger agreement, and 7 indicates the strongest agreement. Sex, age in years, sex, and the name of the teaching hospital are the pieces of background information that are needed.

The third and final questionnaire (Appendix C), which looked at indicators measuring patient satisfaction, was created to gather information from patients who were being treated at Ghana's five teaching hospitals at the time of the data collection. Since patients are the ones who receive healthcare services, they are the best people to provide feedback on how they are treated. The metrics used to gauge patient satisfaction were taken from Zaid et al. (2020). There are four indications in all. "The quality of service received in this hospital meets my expectations," was a sample response (PSA02). The

four indicators are scaled from 1 (least agreement) to 7 (strongest agreement) on a seven-point Likert-type scale. A summary of the variables used in the study, their expected sign, sources, number of items, scale type, Likert scale point, and scale format are presented in Table 4.





**Table 4: Variable Operationalisation and Measurement**

Variable	Expected Sign	Source	Number of Items	Scale Type	Likert Scale Point	Scale Format
Total quality management	TQM	Brah et al. (2002), Rao (2006), Abdous (2009), Anderson and Sohal (1999)	37 items	Ordinal continuous	Seven-point	1= <i>Least agreement</i> to 7= <i>strongest agreement</i>
Competitive intensity	COM	Jansen et al. (2006)	5 items	Ordinal continuous	Seven-point	1= <i>Least agreement</i> to 7= <i>strongest</i>
Market Dynamism	MAR	Jaworski and Kohli (1993)	4 items	Ordinal continuous	Seven-point	1= <i>Least agreement</i> to 7= <i>strongest</i>
Government regulation	GOV	Pryor-Frederic (2002)	4 items	Ordinal continuous	Seven-point	1= <i>Least agreement</i> to 7= <i>strongest</i>
Internal marketing	IMK	Kim et al. (2016)	16 items	Ordinal continuous	Seven-point	1= <i>Least agreement</i> to 7= <i>strongest</i>
Patient satisfaction	PSA	Zaid et al. (2020)	4 items	Ordinal continuous	Seven-point	1= <i>Least acceptance</i> to 7= <i>strongest acceptance</i>

Source: Field Survey (2022)

### **Pre-Testing**

Before the main study, a pre-test was completed. The pre-test's goal was to improve the questionnaire items' clarity and readability so that respondents would not experience difficulties throughout the main research. For the following reasons, pre-tests are crucial before a primary research, according to Pallant (2007). First of all, they make sure that the scale items, directions, and questions are all clear. They also guarantee that potential replies comprehend the queries and give proper answers. Additionally, they aid in locating and removing inquiries or material that can offend potential responses. Finally, because the scales were modified from earlier research, pre-testing was done to guarantee the reliability of the scales as well as that there were no cultural biases in the questionnaires.

### **Factor Analysis**

It was necessary to do the Correlation Matrix Test, Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO), and Bartlett Test of Sphericity prior to evaluating the measurement and structural model. In order to carry out these experiments, IBM SPSS Statistics Software for Windows, Version 24, was used. The first stage will include computing the correlation matrix. According to Adam's (2018) advice, one should not claim that two indicators are correlated if their significance values are more than 0.05 since they would be measuring the same thing. It would be deleted the signs that don't correspond with one another. A correlation value of 0.3 is also considered acceptable.

The second stage was calculating each variable's KMO. KMO values of 0.7 or above were regarded as appropriate for the dataset. Additionally,

Bartlett's Test of Sphericity ought to be 0.05 significant. Finally, one may certainly state that confirmatory factor analysis is appropriate for the data if at least four indicators assess a single concept.

### **Reliability and Validity Tests Procedures**

Prior to testing the hypotheses, the indicator reliability, internal consistency reliability (composite reliability), convergent validity, and discriminant validity methodologies for reflective measurement models were used to assess the reliability and validity of the scales. These tests were carried out using Ringle et al. (2005)'s Smart PLS software version 2.0M.3. According to the parameters provided by Hair et al. (2014), indicator loadings should be about 0.6 or greater in order to be preserved. According to Bagozzi and Yi (1988), Jöreskog's (1971) composite dependability should be 0.7 or greater in order to be kept. According to Bagozzi and Yi (1988), for convergent validity, the average variance extracted (AVE) should be 0.5 or greater, indicating that the latent variable explained more than half of the variance of its indicators.

The Fornell-Larcker criteria, created by Fornell and Larcker (1981), was used to evaluate discriminant validity as opposed to cross loading. If the square-root of the AVE is larger than the greatest correlation between the latent variable and the other constructs, then the Fornell-Larcker criteria for discriminant validity at the concept level has been met. When the Fornell-Larcker criterion is fulfilled, in Garson's (2016) opinion, it indicates that the model has been well defined.

The assessment of multicollinearity,  $R^2$  values, and the magnitude and relevance of the inner model path coefficients were the main evaluation

criteria for the structural model. In order to avoid biasing the regression results, Hair et al. (2018) state that the assessment of the structural model in this study started with an assessment of potential multicollinearity among the exogenous latent variables. As Smart PLS software does not offer these figures, each set of exogenous latent variables in the model was examined for potential collinearity issues using the multiple regression capabilities of IBM SPSS Statistics for Windows, version 24. According to Wong (2013), values of the Variance Inflation Factor above 5 are a general indicator of possible collinearity problems between the predictor components. This study therefore adhered to this general principle. Examining the  $R^2$  value of the endogenous construct(s) was the next step after collinearity was determined to be unimportant.

$R^2$  represents the variance, which is explained in endogenous constructs, and is therefore a measure of the model's explanatory power, according to Shmueli and Koppius (2011). The main target constructs' level of  $R^2$  should be high since the prediction-oriented PLS-SEM technique aims to explain the variance of the endogenous latent variables. Henseler et al. (2009) recommended that the  $R^2$  values of 0.70, 0.50, and 0.20 can be regarded as significant, moderate, and weak, respectively. Sharma et al. (2019) believe that a high  $R^2$  means the model accurately represents the whole population and matches the data that were gathered. They concluded that the same model would probably fit if applied to a different sample taken from the population.

Finally, the PLS structural model's individual path coefficients were understood as standardized beta coefficients for least squares regressions. A bootstrapping approach was used to determine the significance of each route

coefficient, much like it was done with the indicators' weights and loadings. While significant pathways indicating the hypothesised direction empirically corroborate the suggested causal link, tracks that are non-significant or exhibit signals in the opposite direction of the hypothesised direction do not. Significant paths are those that received T-statistic values greater than 1.96.

### **Data Processing and Analysis**

Using IBM SPSS Statistics for Windows, version 24, the background information of the respondents was first analyzed using frequency tables. The researcher then used the Kolmogorov-Smirnov test and Normal Q-Q Plots to determine if the data were normal in order to determine the proper measure of central tendency and dispersion to be utilized for assessing the variables. KMO and Bartlett's test of sphericity was computed once the correlation matrix test was completed. The measurement and structural model were then evaluated using PLS-SEM as the analytical method. For three key reasons, PLS-SEM is preferred over covariance-based structural equation modeling.

The first of this study's research goals is to forecast the variations in the endogenous latent constructs. Second, as in the case of this study, PLS-SEM works best for evaluating complicated models that incorporate a number of components and indicators. Thirdly, PLS-SEM was chosen because of its distributional presumption since it exhibits strong resilience when the data distribution deviates significantly from a bell-shaped curve. For the PLS-SEM Modelling, Ringle et al. (2005)'s Smart PLS software version 2.0M.3 was employed. Initial Weights were set to 1.0, Maximum Iterations were set to 300, and an abort criteria of 1.0E-5 was used to execute the PLS algorithm.

The survey data was manually and meticulously entered into Microsoft Office Excel version 2013 and saved as.xlsx format before the measurement and structural model analysis. As advised by Wong (2013), the names of the indicators (such as TML01, TML02, and TML03) were placed in the first row of the Microsoft Excel spreadsheet and no'string' value (such as words or a single dot) was used in other cells to ensure that Smart PLS could import the Microsoft Excel properly. The dataset was transformed to.csv file format because Smart PLS can not accept native Microsoft Excel files directly.

As advised by Hair et al. (2011), the structural route was evaluated in bootstrapping for significance testing of both the inner and outer model after testing for reliability and validity of the variables. T-statistics were generated using Smart PLS software for the inner and outer model significance tests. With no sign changes, 5000 bootstrap samples must be used to calculate the bootstrap of the mean of the total number of recovered questionnaires or cases. Hair et al. (2014) claim that the bootstrap result comes close to representing the data's normalcy. The path coefficient will thus be deemed significant using a two-tailed t-test with a significance threshold of 5% if the T-statistics is more than 1.96.

Several techniques have been put forth for assessing mediation-related hypotheses. One method is to use the causal steps technique, made popular by Baron and Kenny (1986), in which the researcher estimates the model's routes using structural equation modeling or ordinary least square regression and evaluates the degree to which a number of requirements are satisfied. Three requirements must be completed in order to assert that mediation is taking

place, according to Baron and Kenny's landmark study on mediation analysis from 1986.

According to Baron and Kenny (1986), a dependent variable (Y) is caused by an independent variable (X) by the action of an intervening variable (I). Simply put, for mediation to occur, X and Y must have a major relationship; I and Y must have a significant relationship; and when I is included in the model, the link between X and Y must weaken. Each of the three constructs, in the words of MacKinnon (2002), "must demonstrate evidence of a non-zero monotonic association with each other" (the three variables "must be significantly different from zero"), and the link between X and Y "must substantially decrease upon adding I as a predictor of Y".

The Sobel (1982) test, which compares the connection between the independent variable and the dependent variable to the relationship between the independent and the dependent variable, incorporating the mediation construct, is another frequently used method for assessing mediation effects. This test, however, is based on distributional hypotheses that frequently do not apply to the indirect impact (X I Y). A non-normal distribution of the product is produced by multiplying two normally distributed coefficients. Furthermore, Hair et al. (2014) question the Sobel's test's statistical power and point out that it needs unstandardized path coefficients as input.

Therefore, Hair et al. (2014) advise that when examining the indirect effects of mediation, researchers should follow the guidelines offered by Preacher and Hayes (2004, 2008) and bootstrap the indirect effect sampling distribution, which is effective for both single and multiple mediator models. Bootstrapping does not make any presumptions regarding the distributional

characteristics of the variables or the sample distribution of the statistics. Therefore, the PLS-SEM method is ideal for the mediation strategy. Additionally, Hair et al. (2014) contend that the method has greater statistical power than the Sobel's (1982) test.

First, if the mediator is left out of the model, the direct effect (XY) should still be substantial. Despite not being a need, Zhao et al. (2010) contend that this sort of circumstance makes the mediator analysis considerably simpler to comprehend and interpret. The mediator may absorb all or part of this influence if the link is significant. If there is a substantial direct route link between the exogenous and endogenous latent variables, the mediation analysis will be conducted next, and the mediator construct will be included in the PLS path model.

According to Hair et al. (2014), the indirect impact (X I Y) must be large when the mediator is added. The importance of each distinct path (X I) and path (I Y) is a prerequisite, but it is not sufficient. The investigator may only determine whether their product, which reflects the indirect effect (sufficient condition), is valid if the two pathways likely to be significant after the bootstrapping technique has been run. If the T-statistics is higher than 1.96 (5% level of significance), the association through the I mediator is considered significant. To get the conclusion that I mediate the link between X and Y, the considerable indirect impact is necessary. According to Hair et al. (2018), the mediator takes part of the direct effect into account if the indirect effect is considerable.

How much the mediator variable absorbs is the next point to consider. The indirect impact (X I) \* (I Y) is measured as the direct effect (X Y) + (X I)



\* (I Y) divided by the variation accounted for (VAF). The direct and indirect effects are added together to determine the overall effect. The VAF is fairly low if the indirect effect is considerable but does not take into account the impact of any of the exogenous latent factors on the endogenous variable. Since the VAF would be less than 20% in this case, mediation would be considered to be nearly nonexistent. On the other hand, one may presume that a full mediation has taken place when the VAF has extremely substantial results of above 80%. According to Preacher and Hayes' (2004, 2008) recommendations, partial mediation occurs when the VAF is greater than 20% but less than 80%.

Hair et al. (2014) make the assumption that the association between two variables (X and Y) is not constant but rather depends on a moderator variable (M), and that this moderator variable may vary the relationship's direction. A two-way interaction is what this kind of moderation is known as because, in addition to the endogenous variable (Y), the moderator also interacts with the exogenous latent variable (X). According to Hair et al. (2014), the product indicator technique is most appropriate for reflective models, thus that is why it was utilized for the moderation analysis. However, simulation experiments by Chin (2010) reveal that the product indicator strategy yields more accurate parameters than the latent variable score approach, even if the latent variable scores approach may also be utilized to analyze the moderating influence in reflective measurement models. By multiplying each (mean-centered) indicator of the exogenous latent variable by each indicator of the moderator variable, the product indicator technique is used.

In the interaction term, the product indicators turn into the indicators. The researcher will add the moderator variable to the original model in order to adopt the product indicator strategy. To achieve this, the researcher will add a new construct to the model, give it a new name, and create a route connection connecting it to the target endogenous construct. The indications will then be assigned to the moderator construct by the researcher. The interaction term is then incorporated into the model. Hair et al. (2014) claim that the smart PLS program has the ability to automatically integrate an interaction term with product indications. Then, using the PLS-SEM method with the path weighting scheme, data metric (Mean=0, Var=1), maximum iteration of 300, abort threshold (1.0E-5), and initial weights of 1.0, the researcher will continue with the investigation.

### **Chapter Summary**

The research philosophy, research methodology, research design, study design, study organizations, population, sample size, ethical concerns, data collecting instrument, pre-testing, factor analysis, reliability and validity tests methods, data processing and analysis, and data were all covered in this chapter.

## CHAPTER FOUR

### RESULTS AND DISCUSSION I

#### Introduction

The study's goals are examined in this chapter. The research findings from the study are presented in this chapter. This study aimed to investigate the relationship between overall quality management, patient satisfaction, internal marketing, and competitive intensity. Three chapters make up the final product. This chapter would analyze the respondents' demographic traits as well as the measurement and structural models for the research and hypothesis testing. For the measurement models, concerns with indicator loadings, composite reliability (CR), average variance extracted (AVE), and discriminant validity (DV) were specifically taken into consideration. The direct impact of total quality management on patient satisfaction was examined in this chapter. Subsequent Chapters analysed the moderating role and the mediating role of contextual factors and internal marketing respectively.

#### Demographic Characteristics

The respondents' demographic traits were examined in this section. It was analyzed how the respondents' ages, genders, and work schedules varied. Details about the respondents' demographic traits are provided in Table 5.

**Table 5: Demographic Characteristics of Frontliners**

Characteristic	Category	Frequency	Percent
Gender	Male	253	54.0
	Female	215	46.0
Age (in years)	20-30	247	53
	31-40	171	37
	41-50	42	9
	51-60	8	2
Job Schedule	Nurse	188	40.3
	Doctors	45	9.6
	Pharmacist	28	6.0
	Security	33	7.1
	Health Information/Medical Records	44	9.4
	Midwives	41	8.8
	Cleaness & Orderlies	41	8.8
	Lab Technicians	12	2.6
	Physicians Assistance	14	3.0
	Anaesthetic	8	1.7
	Cashier/Accounts officers	1	.2
	X-Ray	3	.6
	Others	9	1.9
	Hospitals	Cape Coast Teaching Hospital	57
Ho Teaching Hospital		34	7.26
Komfo Anokye Teaching Hospital		134	28.63
Korle Bu Teaching Hospital		174	37.18
Tamale Teaching Hospital		69	14.74
Total		468	100.00

Source: Field Survey (2022)

The results in Table 5 showed that 253 of the respondents were males which represented 54.0 percent of the respondents. Two hundred and fifteen (215) of the respondents were females which represented 46.0 percent of the respondents. This corresponded to the gender-based ratio of the staffs in the health sector which had more males as compared to females. Two hundred and forty-seven (247) of the respondents were between the ages of 20 – 30 years. This represented 53 percent of the respondents. This recorded the highest age bracket among the age brackets. Respondents between the ages of 31-40 years were 171 which was 37 percent of the respondents. Forty-two of the

respondents were between the ages of 41-50 years. This represented 9 percent of the respondents. Respondents between the ages of 51-60 years were 8 which also represented 2 percent of the respondents.

With respect to the job Schedule, 188 of the respondents were nurses. This represented 40.3 percent of the respondents. Doctors were 45 which also represented 9.6 percent of the respondents. Twenty-eight of the respondents were pharmacists which also represented 6.0 percent of the respondents. Security officers were 33. This also represented 7.1 percent of the respondents of the study. Health Information/Medical Records staffs were 44 which also represented 9.4 percent of the respondents. Midwives and Cleaners and orderlies were both 41 which also represented 8.8 percent of the respondents.

Lab Technicians were 12 which also represented 2.6 percent of the respondents. Physicians Assistance were 14 which also represented 3.0 percent of the respondents. Anaesthetic staffs were 8 which had representation of 1.7. Only one person was a Cashiers/Accounts Officers. This represented 0.2 percent of the respondents. Staff at the X-Ray department were 3 which also represented 0.6 percent of the respondents. Finally, nine of the respondents were holding other jobs. This represented 1.9 percent of the respondents.

With respect to the hospital, 57 of the respondents were from the Cape Coast Teaching Hospital. This represented 12.18 percent of the respondents. Thirty-four (34) of the respondents were from the Ho Teaching Hospital. This also represented 7.26 percent of the respondents. One Hundred and thirty-four (134) respondents were from the Komfo Anokye Teaching Hospital. This represented 28.63 percent of the respondents. Korle Bu Teaching Hospital had

174 respondents which represented 37.18 percent of the respondents. Finally, sixty-nine (69) of the respondents were from the Tamale Teaching Hospital. This represented 14.74 percent of the respondents.

**Table 6: Demographic Characteristics of Employees**

Characteristic	Category	Frequency	Percent
Gender	Male	289	61.8
	Female	179	38.2
Age (in years)	20-30	113	24.15
	31-40	255	54.49
	41-50	84	17.95
	51-60	16	3.42
Job Schedule	Nurse	7	1.5
	Doctors	4	.9
	Health Information/Medical Records	4	.9
	Midwives	1	.2
	Lab Technicians	10	2.1
	Cashier/Accounts officers	23	4.9
	Others	1	.2
	IT Manager	59	12.6
	Administrative Manager	228	48.7
	Auditor	57	12.2
	Business Manager	13	2.8
	Director	32	6.8
	Specialists	29	6.2
Hospitals	Cape Coast Teaching Hospital	49	10.5
	Ho Teaching Hospital	31	6.6
	Komfo Anokye Teaching Hospital	137	29.3
	Korle Bu Teaching Hospital	177	37.8
	Tamale Teaching Hospital	74	15.8
	<b>Total</b>	<b>468</b>	<b>100.00</b>

Source: Field Survey (2022)

The demographic characteristics of the employees have been presented on Table 6. From the Table 6, two hundred and eight-nine (289) which represented 61.8 percent. One hundred and seventy-nine (179) respondents were females. This also represented 38.2 percent. With respect of the age of respondents, 113 of the respondents were between the ages 20-30 years. This

represented 24.15 percent of the respondents. Respondents between the ages of 31 and 40 years were 255. This represented 54.49 percent. Respondents between the ages of 41-50 years were 84. This represented 17.95 percent of the respondents. Respondents between the ages of 51 to 60 years were 16. This represented 3.42 percent of the respondents.

Table 6 showed that 7 of the respondents were nurses. This represented 1.5 percent of the respondents. Four of the respondents were doctors. This represented 0.9 percent of the respondents. Four (4) of the respondents were working at health information/medical records. This represented 0.9 percent of the respondents. Only one midwife was recorded. This also represented 0.2 percent of the respondents. Ten (10) of the respondents were Lab Technicians which also recorded a percentage of 2.1 of the respondents. Twenty-three (23) of the respondents were cashier/accounts officers. This represented 4.9 percent of the respondents.

Fifty-nine of the respondents were IT managers. This represented 12.6 percent of the respondents. Two hundred and twenty-eight (228) of the respondents were administrative managers. This represented a 48.7 percent of the respondents. Fifty-seven (57) of the respondents were auditors. This also represented 12.2 percent of the respondents. Thirteen of the respondents were business managers. This represented 2.8 percent of the respondents. Directors of the study were 32. This represented 6.8 percent of the respondents of the study. Specialists were 29. This also recorded a percentage of 6.2.

**Table 7: Demographic Characteristics of Patients**

Characteristic	Category	Frequency	Percent
Gender	Male	187	40.0
	Female	281	60.0
Age (in years)	Less than 30	160	34.25
	31-40	161	34.5
	41-50	100	21.25
	51 and above	47	10
Hospitals	Cape Coast Teaching Hospital	69	14.8
	Ho Teaching Hospital	73	15.5
	Komfo Anokye Teaching Hospital	123	26.3
	Korle Bu Teaching Hospital	158	33.8
	Tamale Teaching Hospital	45	9.8
	<b>Total</b>		<b>468</b>

Source: Field Survey (2022)

From Table 7, males were 187. This represented 40.0 percent of the respondents. Females on the other hand were 281 which also represented 60.0 percent of the respondents.

Patients below the age of 30 years were 160. This represented 34.25 percent of the respondents. Patients between the ages of 31 years and 40 years were 161. This represented 34.5 percent of the respondents. Respondents between the ages of 41-50 years were 100. This represented 21.25 percent of the respondents. Patients above the ages of 51 years were 47 which represented 10 percent of the respondents.

Fifty-nine patients from Cape Coast Teaching Hospital were considered. This represented 14.8 percent of the respondents. Sixty-two of the respondents were from Ho Teaching Hospital. This represented 15.5 percent



of the respondents. One hundred and five (105) of the respondents were from the Komfo Anokye Teaching Hospital. This represented 26.3 percent of the respondents. Finally, 135 of the respondents were from Korle Bu Teaching Hospitals. This also represented 33.8 percent of the respondents.

### **Assessment of Measurement Models for the Study**

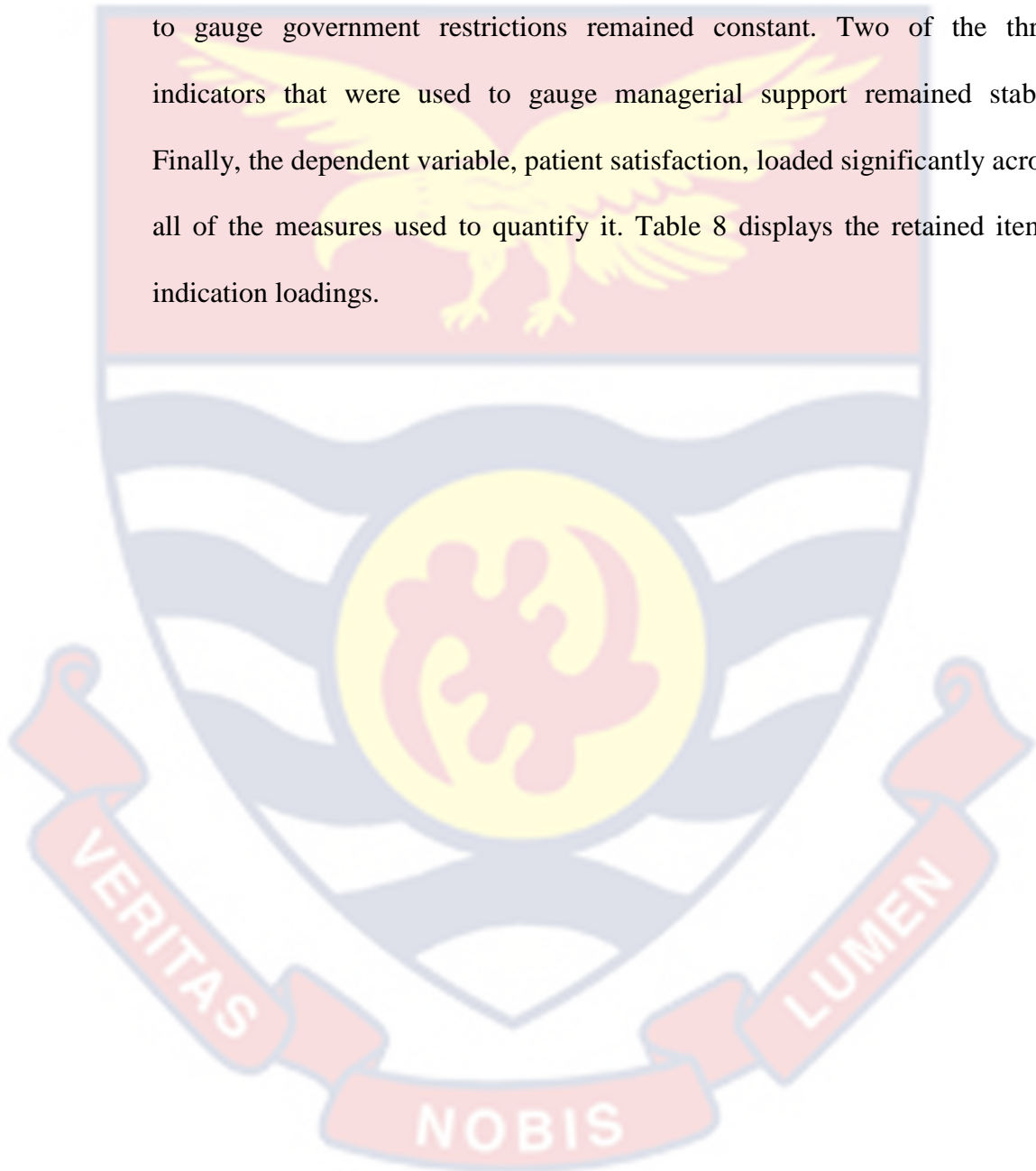
The measuring models for the investigation are the main topic of this section. The evaluation of the indicator loadings opens the section. Indicator loadings, internal consistency reliability (composite reliability), convergent validity (AVE-Average variance extracted), and discriminant validity (Fornell-Lacker and HTMT) are among the evaluations of the measurement model. For the purpose of generating indicators for the evaluation of the measurement model, a consistent PLS algorithm was conducted. The findings are displayed in the tables that follow.

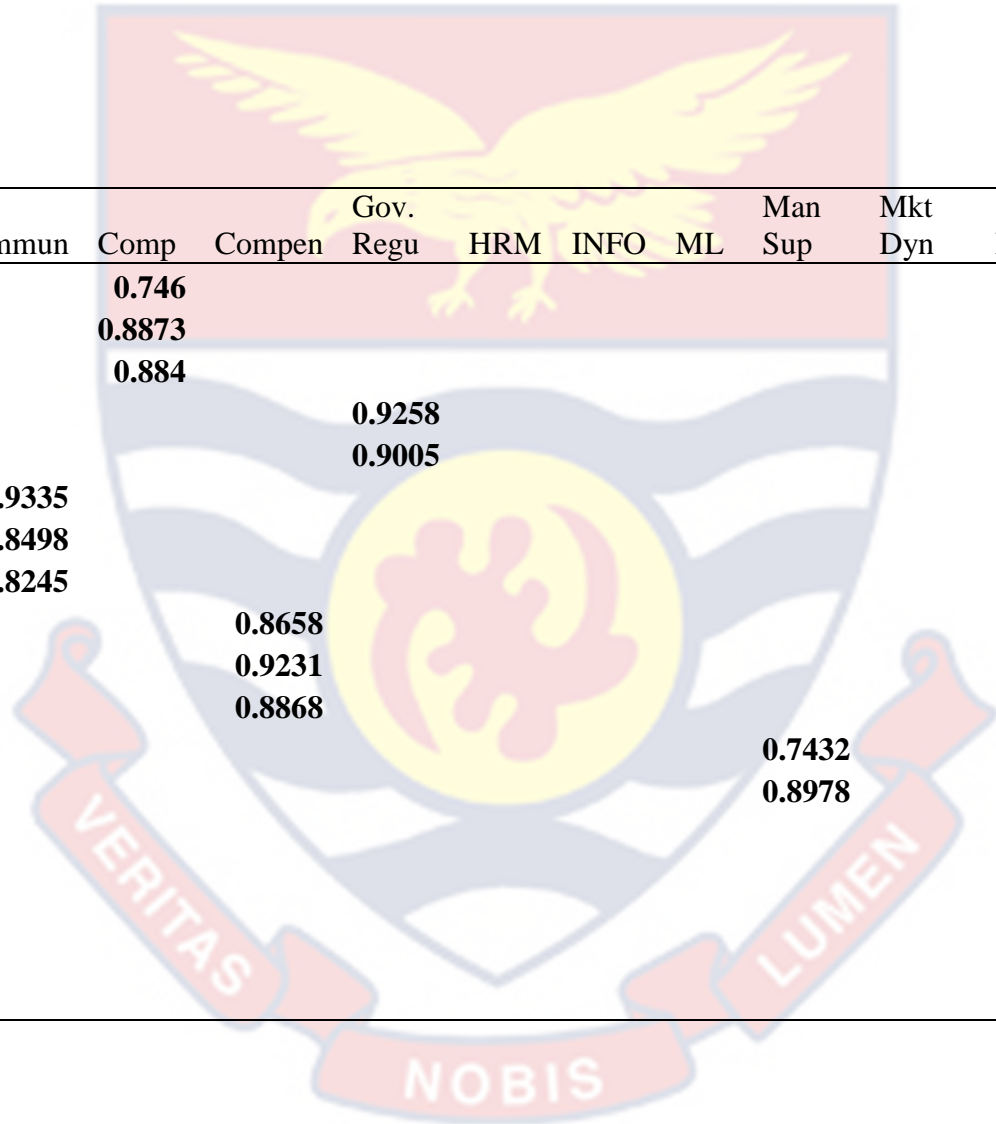
#### **Assessing indicator loadings**

Comparing the indications in Table 8 to those in Figure 3 reveals that several of the indicators were eliminated. To increase the overall model's dependability, any indicators that loaded below the threshold of 0.7 as suggested by Hair et al. (2016) were removed. 23 indicators out of a total of 70 indicators measuring the various latent variables were removed because they did not satisfy the indicator reliability requirements.

It's interesting to note that just 3 of the 9 benchmarking measures were kept, although all other scales for welfare, compensation, communication, and market dynamism were kept. 1 out of 5 management leadership indicators were preserved. Three of the four markers for ongoing process improvement were kept. Three of the five indications that were used to gauge service design

were also kept. Three of the six indicators that were used to gauge quality control were still in place. Additionally, 3 out of 4 information and analysis indications were preserved. Additionally, 3 of the 5 indications used to gauge the level of competition were kept. Additionally, two of the three indices used to gauge government restrictions remained constant. Two of the three indicators that were used to gauge managerial support remained stable. Finally, the dependent variable, patient satisfaction, loaded significantly across all of the measures used to quantify it. Table 8 displays the retained items' indication loadings.

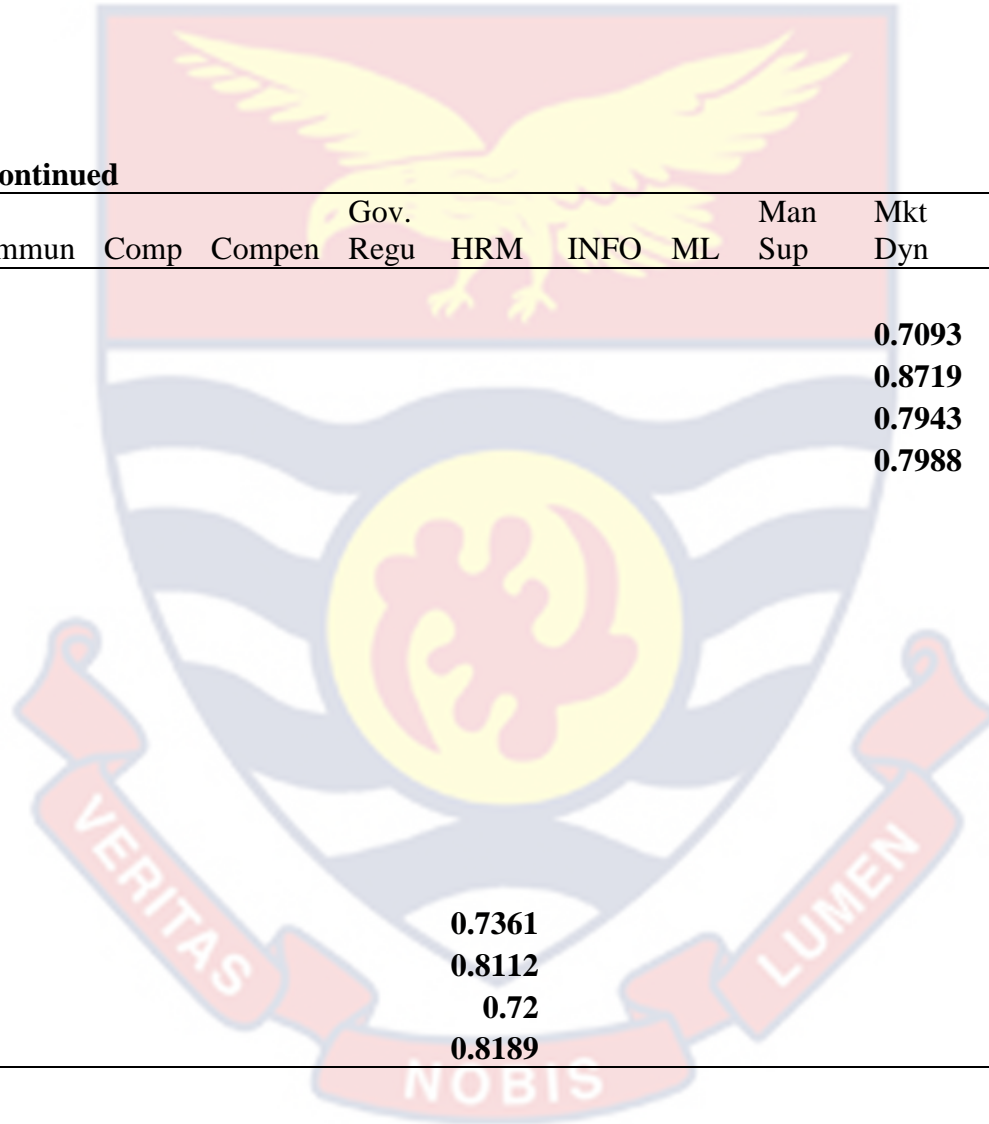




**Table 8: Indicator Loadings**

	Bench	CPI	Commun	Comp	Compen	Gov. Regu	HRM	INFO	ML	Man Sup	Mkt Dyn	PSA	QA	SD	Train	Wel
COM01				<b>0.746</b>												
COM02				<b>0.8873</b>												
COM03				<b>0.884</b>												
GOV03						<b>0.9258</b>										
GOV04						<b>0.9005</b>										
ICM01			<b>0.9335</b>													
ICM02			<b>0.8498</b>													
ICM03			<b>0.8245</b>													
ICP01					<b>0.8658</b>											
ICP02					<b>0.9231</b>											
ICP03					<b>0.8868</b>											
IMS01										<b>0.7432</b>						
IMS03										<b>0.8978</b>						
ITN01															<b>0.9451</b>	
ITN02															<b>0.8544</b>	
IWS01																<b>0.7796</b>
IWS02																<b>0.7994</b>
IWS03																<b>0.7407</b>

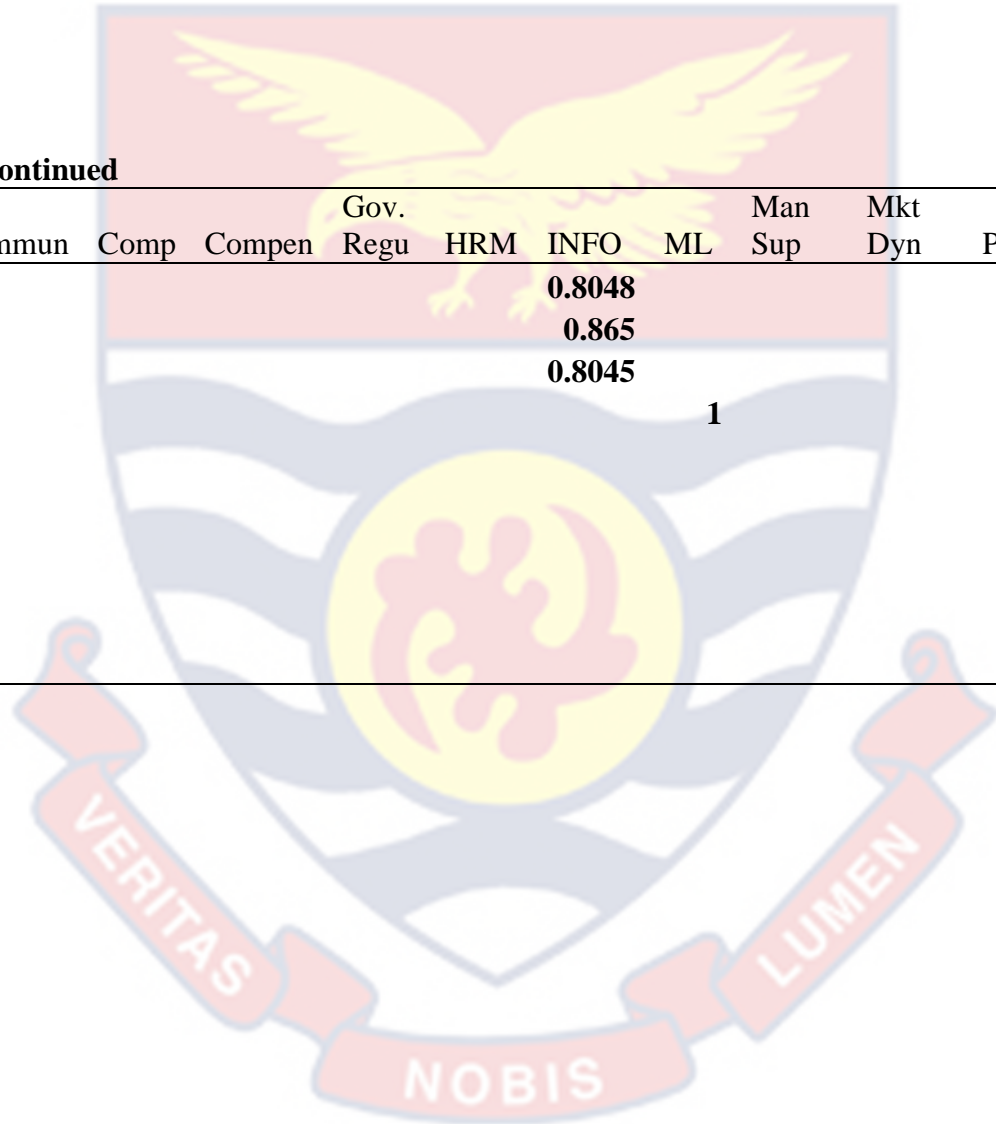
Source: Field Survey (2022)



**Table 8: Indicator Loadings, Continued**

	Bench	CPI	Commun	Comp	Compen	Gov. Regu	HRM	INFO	ML	Man Sup	Mkt Dyn	PSA	QA	SD	Train	Wel		
IWS04																	<b>0.8051</b>	
MAR.01											<b>0.7093</b>							
MAR.02											<b>0.8719</b>							
MAR.03											<b>0.7943</b>							
MAR.04											<b>0.7988</b>							
PSA01												<b>0.8618</b>						
PSA02												<b>0.8675</b>						
PSA03												<b>0.8691</b>						
PSA04												<b>0.8494</b>						
TBM06	<b>0.7781</b>																	
TBM08	<b>0.8755</b>																	
TBM09	<b>0.7814</b>																	
TCI01		<b>0.8618</b>																
TCI02		<b>0.9133</b>																
TCI03		<b>0.7144</b>																
THR01																		<b>0.7361</b>
THR02																		<b>0.8112</b>
THR03																		<b>0.72</b>
THR04																		<b>0.8189</b>

Source: Field Survey (2022)



**Table 8: Indicator Loadings, Continued**

	Bench	CPI	Commun	Comp	Compen	Gov. Regu	HRM	INFO	ML	Man Sup	Mkt Dyn	PSA	QA	SD	Train	Wel
TIA01								<b>0.8048</b>								
TIA02								<b>0.865</b>								
TIA04								<b>0.8045</b>								
TML04									<b>1</b>							
TQA04													<b>0.8072</b>			
TQA05													<b>0.7888</b>			
TQA06													<b>0.8398</b>			
TSD03														<b>0.858</b>		
TSD04														<b>0.9193</b>		
TSD05														<b>0.8908</b>		

Source: Field Survey (2022)

Three benchmarking indicators from Table 8 loaded above 0.7. The maintained indicators are trustworthy since the lowest and greatest values were (0.7781) and (0.8755), respectively. Government regulations indicators loaded between 0.9005 and 0.9258, with the minimum indicator loading on competitive intensity being 0.746 and the greatest indicator loading being 0.8873. The minimum (0.8245) and maximum (0.9335) loads for the retained items of communication were both substantially over the 0.7 criterion. Therefore, between 0.8658 and 0.9231, dimensions of compensation have kept indicators loading far over 0.7. The market dynamic indicators were loaded in the range between 0.7432 and 0.8978.

The indicators for training also loaded between 0.85544 and 0.9451. Four indicators loaded strongly for market dynamism. These loadings were between 0.7093 and 0.8719. The indicators used to measure latent variables in this study are reliable, well above the threshold of 0.7. Three indicators loading strongly to measure continuous process improvement which ranged between 0.7144 to 0.9133. Human resource management's indicators loaded between 0.72 to 0.8189. The indicators for Information and analysis were between 0.8045 and 0.865. Welfare's indicators were between 0.7796 and 0.7994. Patient satisfaction's indicators were between 0.8494 and 0.8691. Indicators for quality assurance was between 0.7888 and 0.8398. Finally, service design had indicators between 0.858 and 0.9193.

### **Assessing Internal Consistency Reliability**

The composite reliability was used in this study to assess the constructs' internal consistency dependability. In comparison to Cronbach's alpha, the composite reliability is a more suitable indicator of internal

consistency (Rositer, 2002). According to Table 9's findings, all of the study's latent variables are trustworthy since they all loaded over the cutoff of 0.7 (Bagozzi & Yi, 1988). Management leadership had the highest score of composite reliability (1) this was followed by Compensation (0.9213), patient satisfaction (0.9204), service design (0.9193), government regulations (0.9095), communication (0.9035), training (0.8958), competitive intensity (0.8787), Market Dynamism (0.8729), continuous process improvement (0.8716), information and analysis (0.8648), welfare (0.8625), human resource management (0.8553), benchmarking (0.8536), quality assurance (0.8532) and management support (0.8076). The results indicate that the model has internal consistency reliability. Table 9 also includes results on convergence validity.

**Table 9: Validity and Reliability**

	AVE	Composite Reliability	Cronbach's Alpha	Communality
Bench	0.6609	0.8536	0.7459	0.6609
CPI	0.6957	0.8716	0.7979	0.6957
Commun	0.7578	0.9035	0.86	0.7578
Comp	0.7084	0.8787	0.7979	0.7084
Compen	0.796	0.9213	0.8735	0.796
Gov. Regu	0.834	0.9095	0.8019	0.834
HRM	0.5972	0.8553	0.7812	0.5972
INFO	0.681	0.8648	0.7685	0.681
ML	1.000	1.000	1.000	1.000
Man Sup	0.6792	0.8076	0.543	0.6792
Mkt Dyn	0.6331	0.8729	0.8214	0.6331
PSA	0.743	0.9204	0.8847	0.743
QA	0.6597	0.8532	0.7458	0.6597
SD	0.7916	0.9193	0.8687	0.7916
Train	0.8116	0.8958	0.7788	0.8116
Wel	0.6109	0.8625	0.7879	0.6109

*Note: PSA- patient satisfaction; Bench – Benchmarking; CPI-Continuous Process Improvement; HRM-Human Resource Management; SD-Service Design; QA – Quality Assurance; INFO – Information and Analysis; ML – Management leadership. Comm-Communication; Compen-Compensation, Man. Sup-Management Support; Train-Training; Wel-Welfare System. PSA-patient satisfaction; Comp-Competitive Intensity; Mkt. Dyn-Market Dynamism; Gov. Regu-Government Regulation*

Source: Field Survey (2022)

### **Assessing Convergent Validity**

Convergent validity was evaluated using the extracted average variance. The degree to which a measure correlates favorably with different measures of the same construct is known as convergent validity (Hair et al., 2017). A construct is said to explain, on average, more than half of the variation of its indicators when the AVE value is 0.50 or above. An AVE of less than 0.50, on the other hand, denotes that, on average, more variation is still accounted for by item errors than by construct variance. According to Table 9's findings, all constructions have an AVE of more than 0.5. Government regulation is at the top, while human resource management is at the bottom. This indicates that the model's structures can explain more than half of the variation in the indicators. The discriminant validity of the measurement model was also evaluated.

### **Assessing Discriminant Validity**

It is assumed that a construct is distinct and captures events that are not represented by other constructs in the model when discriminant validity is established (MacKinnon, 2008). The Fornell-Lacker criteria and the HTMT were both applied in this study to establish discriminant validity. The square root of the AVE values are compared to the correlations of latent variables using the Fornell-Larcker criteria (Fornell & Larcker, 1981). For example, according to Hair et al. (2013), the square root of each construct's AVE should be higher than its greatest correlation with any other construct. According to Table 10's findings, each variable's square root is much higher than its association with other research components. This indicates that no two constructions can accurately reflect the same phenomenon.



Table 10: Fornell-Lacker Criterion

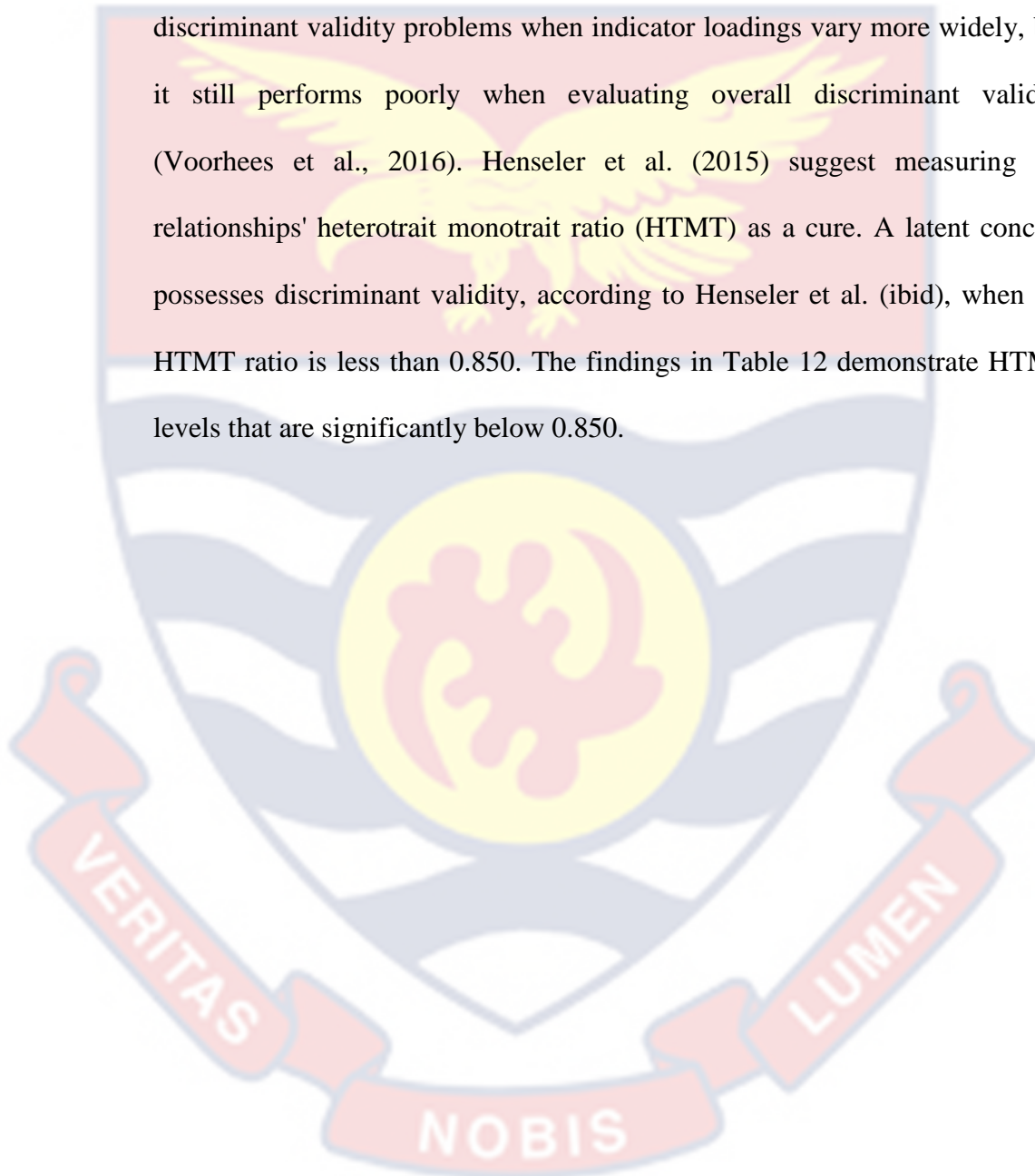
	Bench	CPI	Commun	Comp	Compen	Gov. Regu	HRM	INFO	ML	Man Sup	Mkt Dyn	PSA	QA	SD	Train
Bench	<b>0.8130</b>														
CPI	0.7278	<b>0.8341</b>													
Commun	-0.1341	-0.0760	<b>0.8705</b>												
Comp	0.3076	0.4203	0.1448	<b>0.8417</b>											
Compen	-0.2259	-0.1417	0.8549	0.1730	<b>0.8922</b>										
Gov. Regu	0.3057	0.3284	0.0988	0.5464	-0.0239	<b>0.9132</b>									
HRM	-0.1855	-0.2392	0.6510	0.0297	0.6815	-0.0071	<b>0.7728</b>								
INFO	0.3322	0.2481	0.1811	0.7499	0.2292	0.4129	0.1492	<b>0.8252</b>							
ML	-0.2369	-0.1633	0.2172	-0.3402	0.1651	-0.1801	0.3221	-0.2625	<b>1.0000</b>						
Man Sup	0.0594	0.0686	0.6200	0.4257	0.5324	0.5336	0.4579	0.4689	0.0934	<b>0.8241</b>					
Mkt Dyn	-0.1517	-0.1648	0.6580	0.1709	0.6220	0.1565	0.7302	0.2259	0.2888	0.5319	<b>0.7957</b>				
PSA	0.1334	0.1196	0.2463	0.5150	0.3303	0.5203	0.2384	0.5615	-0.2261	0.6551	0.2106	<b>0.8620</b>			
QA	0.3976	0.1958	0.1403	0.4068	0.0255	0.4145	0.0959	0.4876	-0.2137	0.3026	0.1040	0.3771	<b>0.8122</b>		
SD	-0.0431	-0.1858	0.6558	-0.0566	0.5957	0.0908	0.7079	0.1102	0.2697	0.5249	0.6209	0.2459	0.2390	<b>0.8897</b>	
Train	0.2560	0.2054	-0.0550	0.3764	-0.0879	0.6007	-0.0188	0.3606	-0.2976	0.3462	-0.0225	0.4399	0.4045	0.0411	<b>0.9009</b>
Wel	0.2201	0.3172	0.0786	0.6187	0.0731	0.6962	-0.0423	0.5194	-0.2886	0.4425	0.1131	0.6441	0.3740	-0.0181	0.7089

Bold values are the square root of each construct's AVE which is higher than their correlation with other constructs.

Note: PSA- patient satisfaction; Bench – Benchmarking; CPI-Continuous Process Improvement; HRM-Human Resource Management; SD-Service Design; QA – Quality Assurance; INFO – Information and Analysis; ML – Management leadership. Comm-Communication; Compen-Compensation, Man. Sup-Management Support; Train-Training; Wel-Welfare System. PSA- patient satisfaction; Comp-Competitive Intensity; Mkt. Dyn-Market Dynamism; Gov. Regu-Government Regulation

Source: Field Survey (2022)

When indicator loadings of the constructs under consideration differ just slightly (e.g., all indicator loadings range between 0.70 and 0.80), as they do in this case with leadership behaviors, the Fornell-Larcker criteria performs very badly. The Fornell-Larcker criteria performs better at identifying discriminant validity problems when indicator loadings vary more widely, but it still performs poorly when evaluating overall discriminant validity (Voorhees et al., 2016). Henseler et al. (2015) suggest measuring the relationships' heterotrait monotrait ratio (HTMT) as a cure. A latent concept possesses discriminant validity, according to Henseler et al. (ibid), when the HTMT ratio is less than 0.850. The findings in Table 12 demonstrate HTMT levels that are significantly below 0.850.



**Table 11: Heterotrait-Monotrait Ratio (HTMT)**

	Bench	CPI	Commun	Comp	Compen	Gov. Regu	HRM	INFO	ML	Man Sup	Mkt Dyn	PSA	QA	SD	Train	Wel
Bench																
CPI	0.5356															
Commun	0.1169	0.2888														
Comp	0.282	0.2394	0.0094													
Compen	0.2014	0.383	0.2158	0.3773												
Gov. Regu	0.0817	0.3409	0.1092	0.5477	0.1047											
HRM	0.0003	0.3118	0.0334	0.4719	0.1222	0.1412										
INFO	0.6935	0.1098	0.6261	0.2857	0.7367	0.1435	0.4026									
ML	0.1012	0.4415	0.1487	0.5402	0.0184	0.0316	0.2857	0.4456								
Man Sup	0.092	0.4732	0.1517	0.5873	0.0015	0.0042	0.3453	0.0864	0.5432							
Mkt Dyn	0.0583	0.493	0.0398	0.5224	0.069	0.0048	0.2486	0.3588	0.2179	0.1931						
PSA	0.0023	0.5093	0.0172	0.4523	0.0767	0.1457	0.2829	0.25	0.0371	0.1348	0.2239					
QA	0.5047	0.1304	0.5274	0.2664	0.5198	0.0949	0.1872	0.4071	0.2869	0.2969	0.2643	0.1221				
SD	0.5119	0.4173	0.5263	0.2715	0.6947	0.126	0.315	0.2322	0.2453	0.0842	0.221	0.1239	0.1155			
Train	0.2922	0.0688	0.0555	0.1931	0.2643	0.276	0.2924	0.2398	0.4046	0.2636	0.2727	0.041	0.2924	0.2722		
Wel	0.0497	0.2419	0.1661	0.1348	0.221	0.2762	0.4422	0.046	0.1237	0.3343	0.2996	0.027	0.0624	0.2781	0.3487	

*Note: PSA- patient satisfaction; Bench – Benchmarking; CPI-Continuous Process Improvement; HRM-Human Resource Management; SD-Service Design; QA – Quality Assurance; INFO – Information and Analysis; ML – Management leadership. Comm-Communication; Compen-Compensation, Man. Sup-Management Support; Train-Training; Wel-Welfare System. PSA- patient satisfaction; Comp-Competitive Intensity; Mkt. Dyn-Market Dynamism; Gov. Regu-Government Regulation*

Source: Field Survey (2022)

### Model Fitness

Chi-square ( $\chi^2$ ), goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), root-mean-square residual (RMR), and root-mean-square-error of approximation (RMSEA) are typical model fit criteria in absolute fit. These standards are based on discrepancies between the observed correlation or covariance matrix and those suggested by the model (Hair et al., 2014). Comparative fit examines if the model under consideration is superior to a rival model in explaining the observed data. Comparative fit evaluation is based on comparing a "baseline" model to models that were created theoretically (Kelloway, 1998). The relative non-centrality index (RNI), comparative fit index (CFI), and normed fit index (NFI) are a few of the criteria in this category.

Root Mean Squared Error of Approximation (RMSEA 0.08), Goodness of Fit Index (GFI 0.90), Normed Fit Index (NFI 0.90), and Comparative Fit Index (CFI 0.90) were the fit indices that were used to assess how well the measurement model fit the data that was gathered (Bagozzi & Yi, 2012; Hair et al., 2010). The  $\chi^2$  goodness-of-fit number measures how well the theoretical model created a covariance matrix and estimates coefficients in comparison to the observed covariance matrix. A high number of participants, however, might lead to an exaggerated value of  $\chi^2$  when evaluating model fit since the value of  $\chi^2$  is influenced by the sample size (Hu & Bentler, 1999).

Instead than relying just on the overall  $\chi^2$  and its related test of significance, several researchers have used the approach that splits the value of  $\chi^2$  by degrees of freedom. A big sample is said to benefit from a  $\chi^2/df$  ratio (Normed Chi square) of less than 3, according to conventional wisdom. To

evaluate the accuracy and acceptability of the construct measures, these fit indices were used. These fit indicators were chosen based on the categorization Byrne (2013) suggested as the most widely used standard in social sciences.

70 measurement items or questions were used to assess the model's fitness, with the intention of deleting the variables that did not meet some of the indicator means in order to enhance the model's fit with the data. To reach the model fit indices, no measurement item was eliminated because all of the elements were fit.

**Table 12: Model Fit Measures for Final Measurement Model**

Measure	Estimate	Threshold	Interpretation
CMIN	1209.857	--	--
DF	468	--	--
CMIN/DF	2.585	Between 1 and 3	Excellent
CFI	0.996	>0.95	Excellent
SRMR	0.054	<0.08	Excellent
RMSEA	0.053	<0.06	Excellent
PClose		>0.05	Excellent

Source: Field Survey (2022)

Hu and Bentler (1999) assert that certain indicators must be utilized to gauge the degree of data fit. The Normed Fit Index (NFI), Comparative Fit Index (CFI), Relative Non-Centrality Index (RNI), Root Mean Squared Error of Approximation (RMSEA), Goodness of Fit Index (GFI), Normed Fit Index (NFI), and Comparative Fit Index (CFI) are some examples of these metrics. The outcomes produced by the Smart PLS version 4 are shown in Table 12. This finding implies that there is a substantial link between the survey questions and constructs.

### Assessing the structural model

An evaluation of the study's hypothesis is provided in this section. Collinearity between constructs, coefficient of determination, predictive relevance, effect size, path coefficient, and its significance must all be evaluated while evaluating the structural model. On the advice of Nitzl et al. (2016), the direct and indirect models were both ran concurrently in this analysis.

The findings for evaluating multicollinearity among the study's indicators are shown in Table 13. According to Hair et al. (2011), a tolerance value of 0.20 or less and a VIF value of 5 or higher, respectively, in the context of PLS-SEM, suggest a potential collinearity issue. A VIF level of 5 for an indicator, for example, means that the other formative indicators linked to the same construct account for 80% of the indicator's variation. The findings from Table 13 reveal a minimum VIF of 1.221 and a maximum of 2.903 for the endogenous variable (total quality management, contextual factors, and internal marketing), as well as a minimum tolerance value of 0.344 and a maximum of 0.819.

**Table 13: Multicollinearity**

	VIF	Tolerance
Bench	2.363	0.423
CPI	2.037	0.491
Commun	2.903	0.344
Comp	1.269	0.788
Compen	1.642	0.609
Gov. Regu	1.352	0.740
HRM	2.181	0.459
INFO	2.036	0.491
ML	2.181	0.459
Man Sup	2.036	0.491
Mkt Dyn	2.901	0.345
QA	1.638	0.611
SD	1.221	0.819
Train	1.408	0.710
Wel	2.332	0.429

*Note: PSA- patient satisfaction; Bench – Benchmarking; CPI-Continuous Process Improvement; HRM-Human Resource Management; SD-Service Design; QA – Quality Assurance; INFO – Information and Analysis; ML – Management leadership. Comm-Communication; Compen-Compensation, Man. Sup-Management Support; Train-Training; Wel-Welfare System. PSA-patient satisfaction; Comp-Competitive Intensity; Mkt. Dyn-Market Dynamism; Gov. Regu-Government Regulation*  
Source: Field Survey (2022)

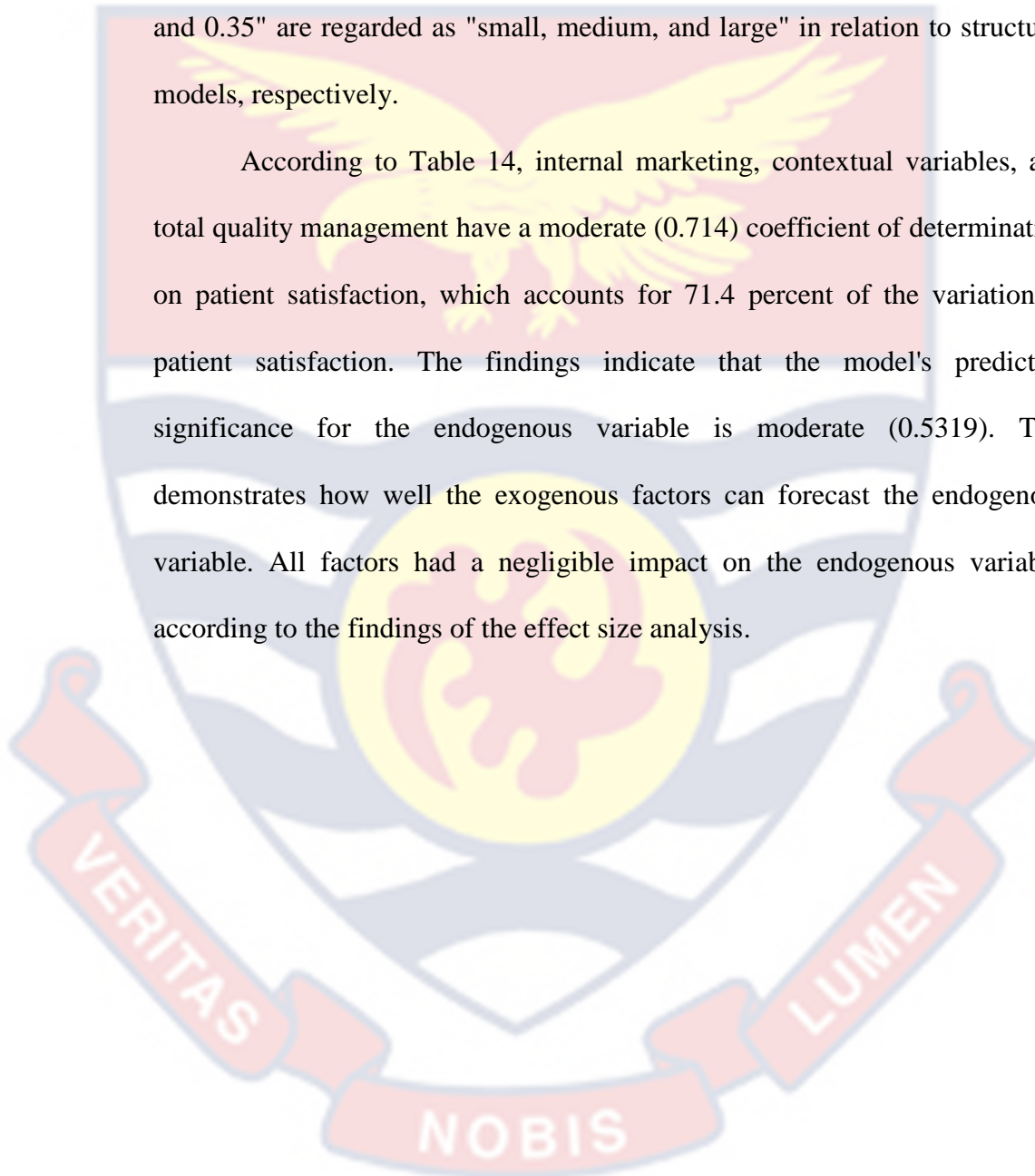
The VIF results in Table 13 provide additional evidence that there is no common technique bias. A VIF score larger than 3.3 is suggested as a sign of pathological collinearity and a sign that a model could be tainted by common method bias based on the standards put forward by Kock and Lynn (2012). Therefore, the model may be regarded as being free from the issue of vertical or lateral collinearity as well as common method bias if all VIFs obtained from a comprehensive collinearity test are equal to or lower than 3.3 (Kock, 2013).

#### **Assessing coefficient of determination and predictive relevance**

The prediction accuracy of the model is gauged by the  $R^2$ .  $R^2$  may also be thought of as the sum of the effects of the exogenous and endogenous

variables. According to Hair et al. (2014), structural models with coefficients of determination ( $R^2$ ) of 0.25, 0.5, and 0.75 are regarded to be weak, moderate, and considerable, respectively. Furthermore, the author claimed that effect sizes ( $f^2$ ) of "0.02, 0.15, and 0.35" and predictive relevance ( $Q^2$ ) of "0.02, 0.15, and 0.35" are regarded as "small, medium, and large" in relation to structural models, respectively.

According to Table 14, internal marketing, contextual variables, and total quality management have a moderate (0.714) coefficient of determination on patient satisfaction, which accounts for 71.4 percent of the variation in patient satisfaction. The findings indicate that the model's predictive significance for the endogenous variable is moderate (0.5319). This demonstrates how well the exogenous factors can forecast the endogenous variable. All factors had a negligible impact on the endogenous variable, according to the findings of the effect size analysis.





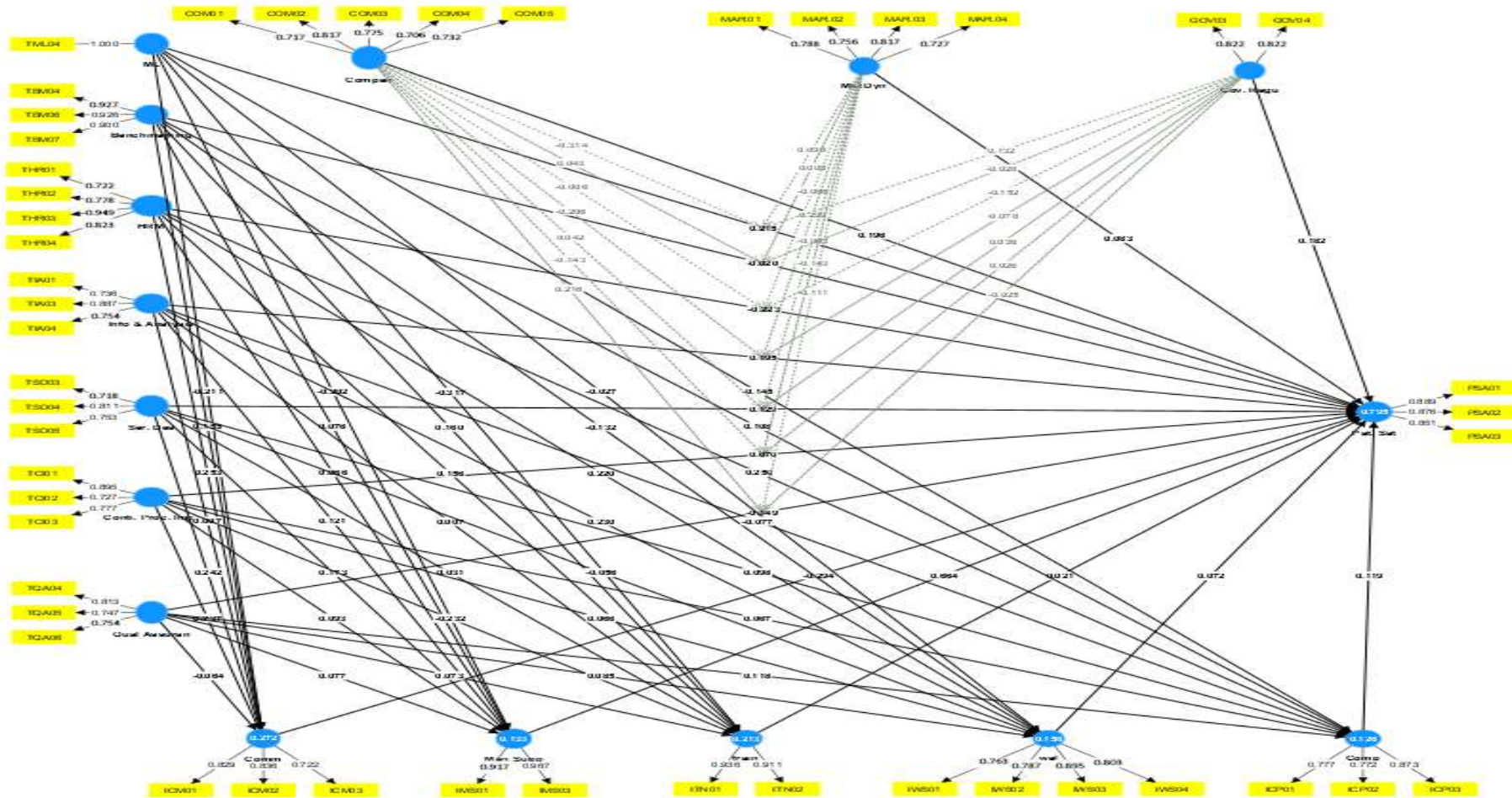


Figure 2: Model Output  
Source: Author's Construct

### Total Quality Management and Patient Satisfaction

The first objective of the study was to analyse the effect of total quality management on patient satisfaction. Total quality management was demarcated into seven components. These components included management leadership, benchmarking, continuous process improvement, service design, human resource management, quality assurance and information and analysis. These components of total quality management were regressed on patient satisfactions. The outcome is presented on Table 14.

**Table 14: Direct effect of Total Quality Management and Patient Satisfaction**

	Path	T-statistics	R <sup>2</sup>	Adjusted R <sup>2</sup>	Q <sup>2</sup>	P-value	F <sup>2</sup>
PSA			0.714	0.689	0.5319		
Bench	0.015	0.3526				0.661	0.004
CPI	-0.0532	1.1068				0.239	0.025
HRM	0.2121	4.6833				0.000	0.101
INFO	0.1002	1.5839				0.118	0.010
ML	0.1513	3.902				0.000	0.065
QA	0.097	2.5711				0.021	0.017
SD	0.0399	0.9282				0.358	0.009

*Note: PSA- patient satisfaction; Bench – Benchmarking; CPI-Continuous Process Improvement; HRM-Human Resource Management; SD-Service Design; QA – Quality Assurance; INFO – Information and Analysis; ML – Management leadership.*

Source: Field Survey (2022)

Table 14 shows the direct relationship between total quality management and patient satisfaction. The seven components of total quality management were regressed on the patient satisfaction.

From the Table 14, there was no significant relationship between benchmarking and patient satisfaction [ $B=0.015$ ;  $t(468)= 0.3526$ ;  $p > 0.05$ ]. The relationship was positive but insignificant. That is, irrespective of the level of benchmarking that the hospital possess, patient satisfaction would not

be affected. The goal of benchmarking is to make continuous improvements and implement changes in business products, methods and services. Therefore, benchmarking practices provide a better understanding of customer wishes and expectations. This is because customers are the most important data source at every stage of comparison. However, the result showed that, benchmarking at the hospitals do not have significant effect on patient's satisfaction. The results of the study contradict with the findings of Nguyen and Nagase (2019) who found that, benchmarking affects patient satisfaction.

There was a negative but insignificant relationship between continuous process improvement and patient satisfaction [ $B=-0.0532$ ;  $t(468)= 1.1068$ ;  $p > 0.05$ ]. Continuous process improvement has no significant effect on employee satisfaction. A continual improvement process, also often called a continuous improvement process, is an ongoing effort to improve products, services, or processes. These efforts can seek "incremental" improvement over time or "breakthrough" improvement all at once. As organisations improves on the process, it is expected that it would reflect in the satisfaction that patient gets. The results of the study contradicted that of Friesner et al. (2009). They found that continuous process improvement improves every aspect of the organisation which includes service delivery of the hospital. This would replicate in the level of satisfaction that patients enjoy.

Human resource management, as a component of total quality management had a positive and significant effect on patient satisfaction [ $B=0.2121$ ;  $t(468)= 4.6833$ ;  $p < 0.05$ ]. A unit increase in human resource management would lead to a 0.2121 increase in patient satisfaction. Human resource plays a key role in terms of rendering services at the hospital. They

are usually referred as the blood line of every institution. If they are managed very well, it will reflect in the level of patient's satisfaction. Roger et al. (2016) studied on strategic human resource management of volunteers and the link to hospital patient satisfaction. They found that, human resource management had a positive impact on patient satisfaction. Human resource being the bloodline of every organisation, proper and effective human resource management would affect the way patients are received at the hospital which would eventually affect patient's satisfaction.

There was no significant relationship between information and analysis on patient satisfaction [ $B = 0.1002$ ;  $t(468) = 1.5839$ ;  $p > 0.05$ ]. Information and analysis had no effect on patient satisfaction. Irrespective of the level of the information and analysis implemented by hospitals, patient's satisfaction would not change. Every hospital keeps the data of patients in a database.

Management leadership had a positive and significant effect on patient satisfaction [ $B = 0.1513$ ;  $t(468) = 3.902$ ;  $p < 0.05$ ]. A unit increase in management leadership would lead to a 0.1513 increase in patient satisfaction. High quality management leadership results in a happier, more cohesive, and more productive team of employees who in turn provide better service to their patients. In addition, effective management leaders provide their team members with the resources to serve their customers most effectively. The findings of the study comply with Uboro and Obeng (2000) studied on top management leadership, employee empowerment customer satisfaction. Their study found that, efficient leadership that plans, organizes, coordinates and controls their organisational resources are likely to improve patients' satisfaction.

Quality Assurance had a positive and significant effect on patient satisfaction [ $B=0.097$ ;  $t(468)= 2.5711$ ;  $p < 0.05$ ]. A unit increase in quality assurance would lead to a 0.097 increase in patient satisfaction. Quality assurance is any systematic process of determining whether a product or service meets specified requirements. Quality assurance establishes and maintains set requirements for developing or manufacturing reliable products. Quality assurance gives management deep insight into patients' needs, wants and satisfaction, as well as management performance. It allows managers to tailor their support strategies, perfect their services, adjust focus on what needs to be improved, but also boost the employees' motivation for better performance. This reflects in patient's level of satisfaction. Hasin et al. (2001) studied on how quality assurance influences customer satisfaction for health sector. The study found that, quality assurance improves the satisfaction patients gain in the hospital.

There was no significant relationship between service design and patient satisfaction [ $B=0.0399$ ;  $t(468)= 1.1068$ ;  $p > 0.05$ ]. Service design practiced, as a component of total quality management, has no effect on how satisfied patients were. Service design aims to optimize the interplay between the customers' journey and the internal business processes that support it. Findings show that perceived service design in terms of functional, aesthetic, and symbolic design is positively related to self-determined needs (autonomy, relatedness, competence) satisfaction. Gill and White (2009) found that, service design plays no significant role in terms of patient satisfaction.

Resource-Based Theory (RBT) is a management framework that emphasizes the role of a firm's unique resources and capabilities in achieving

competitive advantage and superior performance. This theory suggests that organizations can gain a sustained competitive advantage by acquiring and leveraging resources that are valuable, rare, inimitable, and non-substitutable (VRIN criteria). In the context of healthcare organizations and the relationship between Total Quality Management (TQM) and patient satisfaction, Resource-Based Theory can help explain how TQM practices contribute to improved patient satisfaction: Total Quality Management practices can be seen as valuable resources for healthcare organizations. TQM focuses on continuous improvement, customer satisfaction, and quality enhancement. By implementing TQM principles, healthcare organizations can streamline processes, minimize errors, and improve service delivery—all of which contribute to higher patient satisfaction levels.

Also, not all healthcare organizations may adopt TQM practices effectively. The successful implementation of TQM requires a significant commitment of resources, including time, effort, and financial investment. Organizations that effectively implement TQM and build a culture of quality improvement develop a rare resource that sets them apart from competitors, leading to better patient experiences and higher satisfaction rates.

Implementing TQM involves creating a culture of quality, which may be challenging for competitors to replicate quickly. It requires organizational commitment, employee involvement, and a willingness to adapt to change. Healthcare organizations that have successfully integrated TQM into their operations develop inimitable resources that can positively impact patient satisfaction.

Moreover, the positive impact of quality assurance, human resource management and management leadership on patient satisfaction is not easily replaced by other means. While various factors can influence patient satisfaction, TQM provides a comprehensive and systematic approach that encompasses all aspects of the organization. It goes beyond short-term fixes and addresses underlying issues, leading to more sustained improvements in patient satisfaction.

In summary, Resource-Based Theory suggests that healthcare organizations that effectively implement Total Quality Management practices can create a competitive advantage by developing valuable, rare, inimitable, and non-substitutable resources. These resources contribute to enhanced patient satisfaction, as TQM focuses on continuously improving processes and services, which leads to better patient experiences and outcomes.

### Contextual Factors and Patient Satisfaction

The second objective of the study was to analyse the effect of contextual factors on patient satisfaction. Contextual factor was divided into three components. These components were competitive intensity, market dynamism and government regulation. The result is presented on Table 15.

**Table 15: Contextual Factors and Patient Satisfaction**

	Path	T- statistics	R <sup>2</sup>	Adjusted R <sup>2</sup>	Q <sup>2</sup>	P- value	F <sup>2</sup>
PSA			0.714	0.689	0.5319		
Comp.	-0.0732	1.3266				0.192	0.005
Gov. Regu.	0.0359	1.1574				0.398	0.009
Mkt. Dyn	-0.2433	4.1446				0.000	0.272

*Note: PSA- patient satisfaction; Comp-Competitive Intensity; Mkt. Dyn-Market Dynamism; Gov. Regu-Government Regulation*

Source: Field Survey (2022)

From Table 15, there was no significant relationship between competitive intensity and patient satisfaction [ $B = -0.0732$ ;  $t(468) = 0.192$ ;  $p > 0.05$ ]. The relationship between competitive intensity and patient satisfaction was negative but insignificant. This indicates that, patient's satisfaction does not depend on the level of competitive intensity. As the increase of the competition degree, patient satisfaction increase. When the threshold is reached, patient satisfaction will decrease as competition degree increase. Secondly, the competition degree has different effects on market differentiation and product differentiation. However, the study found that, competitive intensity had insignificant effect on patient satisfaction.

Government regulation had no significant effect on patient satisfaction [ $B = 0.0359$ ;  $t(468) = 1.1574$ ;  $p > 0.05$ ]. Patient satisfaction would not be influenced irrespective of the level of government regulation. Even though, the relationship was positive but insignificant. Government regulations usually directs institutions what to do. However, these regulations usually affect the organisation or institution. These regulations are usually geared towards management of funds since these hospitals are partly funded by the government. The regulations usually have no direct impact on the satisfaction that patients get at the hospital.

There was a negative and significant relation between market dynamism and patient satisfaction [ $B = -0.2433$ ;  $t(468) = 4.1446$ ;  $p < 0.05$ ]. A unit increase in market dynamism would lead to a 0.2433 decrease in patient satisfaction. Market dynamics are forces that will impact prices and the behaviors of producers and consumers. In a market, these forces create pricing signals which result from the fluctuation of supply and demand for a given



product or service. The study found that, the changes that exist in the hospital industry cause demand for hospital services to vary. These variations have a negative effect on the operations of the hospitals. When the variations increase, staffs of the organisation react in favour of the direction of the dynamics in the market. These reactions end up affecting the satisfaction that patients acquire from the hospital.

### Internal Marketing and Patient Satisfaction

The third objective of the study analysed the effect of internal marketing on patient satisfaction. Internal Marketing was demarcated into five components as indicated in the review. These components included welfare systems, training, compensation, communication and management support. These components were regressed on patient satisfaction using the structural equation model. The result is presented on Table 16.

**Table 16: Internal Marketing and Patient Satisfaction**

	Path	T-statistics	R <sup>2</sup>	Adjusted R <sup>2</sup>	Q <sup>2</sup>	P-value	F <sup>2</sup>
PSA			0.714	0.689	0.5319		
Comm.	-0.4666	7.6245				0.000	0.177
Compen.	0.3583	5.1205				0.000	0.134
Man. Sup	0.5678	10.5142				0.000	0.233
Train	-0.2086	5.1988				0.000	0.139
Wel	0.4953	10.9936				0.000	0.296

*Note: PSA- patient satisfaction; Comm-Communication; Compen-Compensation, Man. Sup-Management Support; Train-Training; Wel-Welfare System.*

Source: Field Survey (2022)

The results of the effect of internal marketing on patient satisfaction is presented on Table 16. From the table, there was a negative and significant relationship between communication and patient satisfaction [B=-0.4666; t(468)= 7.6245; p < 0.05]. A unit increase in communication of staffs would lead to a 0.4666 decrease in patient satisfaction. Communication is pivotal to

health care outcomes, which includes patient safety and patient satisfaction. Communication reduces the chances of a breakdown in continuity of care, builds relationships and understanding. However, due to personal traits of patients, some become offended when staffs communicate to them. Also, there has been an underlying perception about the way hospital staffs communicate. This underlying perception usually creates dissatisfactions among patient even if the right channel or way is used to communicate. Dutta-Bergman (2005) found a contradictory result as they found that communication has a positive effect on patient's satisfaction.

There was a positive and significant relationship between compensation and patient's satisfaction [ $B = 0.3593$ ;  $t(468) = 5.1205$ ;  $p < 0.05$ ]. A unit increase in compensation would lead to a 0.3593 increase in patient satisfaction. Satisfied employees help produce satisfied customers. Satisfied employees are likely to assist customers with a more pleasant demeanor and a higher level of customer service. This creates a more satisfying patient experience, increases patient loyalty, and ultimately drives increased profitability. Employees who are well compensated perform their job with a positive mentality which affects the way they satisfy their patients. Bulgarella (2005) found that employee satisfaction can influence customer satisfaction.

There was a positive and significant relationship between management support and patient's satisfaction [ $B = 0.5678$ ;  $t(468) = 10.5142$ ;  $p < 0.05$ ]. A unit increase in management support would lead to a 0.5678 increase in patient satisfaction. Managerial support can take many different forms, including effective communication between workers and managers, involving workers in important decisions, giving workers clear feedback on their

performance and helping them with difficult tasks. This affects the satisfaction that patients achieve from hospital. Effective communication and employee's involvement in decision making would enhance the morale of employees. Employees would then improve their interaction with patients which would enhance patient's satisfaction. The findings from this study is consistent with Weller et al. (2020)'s study found that management support influences customer's satisfaction.

Training had a negative and significant effect on patient satisfaction [ $B = -0.2086$ ;  $t(468) = 5.1988$ ;  $p < 0.05$ ]. A unit increase in training would lead to a 0.2086 decrease in patient satisfaction. Through effective training, customer service representatives increase their ability to resolve issues and decrease the number of return calls. Often, trained employees are able to address the concern at the first point of contact, which greatly increases patient's satisfaction. However, this study found that, as staffs are trained, patient's satisfaction decreases. Patients at the hospital usually feel disrespected when staffs practice what they are trained on. The findings contradict with the study by Waqanumaravu and Arasanmi (2020) who found that training has positive effect on patient's satisfaction. According to their study, trained staffs act in favour of patients. They consider patient's choices to be paramount.

There was a positive and significant relationship between welfare system and patient satisfaction [ $B = 0.4953$ ;  $t(468) = 10.9936$ ;  $p < 0.05$ ]. A unit increase in welfare system would lead to a 0.4953 increase in patient satisfaction. Employee welfare means anything done for the comfort and improvement of the employees, over and above the wages paid. In simple

words, it means “the efforts to make life worth living for workmen.” It includes various services, facilities and amenities provided to employees for their betterment. Improved welfare system has a positive effect on the satisfaction of patients. The study’s findings are in line with Kang (2015) who found that proper welfare system in enhances staff’s performance which reflects in the way they receive patient. This affects patient satisfactions positively.

Affective Event Theory (AET) is a psychological theory that explains how events in the workplace can trigger emotional reactions, which, in turn, can influence employees' attitudes and behaviors. It suggests that emotional experiences at work can affect employees' job satisfaction, motivation, and performance. While AET primarily focuses on employees, it can also be applied to understand the relationship between internal marketing and patient satisfaction in the healthcare context. Internal marketing refers to the process of treating employees as internal customers and promoting a customer-oriented culture within the organization. It involves efforts to engage and motivate employees to deliver high-quality services that meet or exceed customer expectations. When applied to healthcare organizations, internal marketing aims to ensure that healthcare professionals are well-supported, motivated, and committed to providing excellent patient care.

Internal marketing initiatives can create positive emotional experiences among healthcare professionals. When employees feel valued, respected, and well-supported, they are more likely to experience positive emotions such as job satisfaction, engagement, and a sense of purpose. These positive emotional experiences can carry over to their interactions with patients. Affective Event

Theory proposes that emotions can be contagious. When healthcare professionals experience positive emotions due to internal marketing efforts, they may transmit these positive emotions to their patients during interactions. Patients are more likely to perceive the genuine care and concern of healthcare professionals, which can positively impact their satisfaction with the overall healthcare experience.

AET emphasizes the role of the organizational context in shaping emotional experiences. Internal marketing contributes to a positive organizational culture and climate, which, in turn, fosters a supportive and caring environment. A positive organizational culture enhances employees' emotional well-being and job satisfaction, leading to better patient interactions and, ultimately, higher patient satisfaction. This explains why internal marketing influences patient satisfaction.

### **Chapter Summary**

This section examined the direct connections between overall quality management and patient satisfaction, contextual variables and patient happiness, as well as the relationship between internal marketing and patient satisfaction in the first phase of the data analysis. The chapter started with an examination of the respondents' demographic traits. Three groups were created from the study's responses. This applied to both the patients and the staff who were on the front lines. Additionally, a validity analysis of the items used to measure the components was conducted. Cross loadings, convergent and discriminant validity tests, as well as an examination of the model fitness, were also done. The model structure was subsequently evaluated. Examined and described was how the variables related to one another.

## CHAPTER FIVE

### RESULTS AND DISCUSSION II

#### Introduction

This chapter sought to examine the roles of contextual factors and internal marketing on the relationship between total quality management and patient satisfaction. The moderating and mediating effects of the variables were examined and explained.

#### **Moderating effect of contextual factors on the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana**

The fourth objective of the study was to analyse the moderating role of contextual factors on the relationship between Total Quality Management and Patient satisfaction. From the reviewed literature, the total quality management were demarcated into seven components. These components were management leadership, benchmarking, continuous process improvement, service design, human resource management, quality assurance, information and analysis. Contextual factors included competitive intensity, market dynamism, and government regulation. The moderating results between each of the moderators and the independent and the dependent variable have been presented on the Table 17.

**Table 17: Moderating Effect**

	Path	Standard Error	T Stats	Sig
Bench * Comp -> PSA	-0.3762	0.4732	0.795	0.413
Bench * Gov. Regu -> PSA	0.1536	0.537	0.286	0.789
Bench * Mkt Dyn -> PSA	0.5585	0.3088	1.8088	0.051
CPI * Comp -> PSA	1.9974	0.5132	3.892	0.001
CPI * Gov. Regu -> PSA	1.5932	0.622	2.5615	0.003
CPI * Mkt Dyn -> PSA	-0.2216	0.2274	0.9743	0.103
HRM * Comp -> PSA	1.2701	0.3008	4.2216	0.000
HRM * Gov. Regu -> PSA	0.5354	0.3303	1.6209	0.062
HRM * Mkt Dyn -> PSA	0.4251	0.3887	1.0936	0.138
INFO * Comp -> PSA	0.9349	0.4552	2.0537	0.004
INFO * Gov. Regu -> PSA	-0.4723	0.4103	1.1512	0.130
INFO * Mkt Dyn -> PSA	0.5665	0.3574	1.5853	0.092
ML * Comp -> PSA	0.6778	0.2362	2.8692	0.001
ML * Gov. Regu -> PSA	0.6338	0.2485	2.5502	0.003
ML * Mkt Dyn -> PSA	-0.6493	0.7783	0.8343	0.395
QA * Comp -> PSA	0.1159	0.3201	0.3621	0.821
QA * Gov. Regu -> PSA	0.7656	0.3955	1.936	0.041
QA * Mkt Dyn -> PSA	0.6357	0.2925	2.1734	0.012
SD * Comp -> PSA	-0.2713	0.3219	0.843	0.592
SD * Gov. Regu -> PSA	-0.242	0.3368	0.7184	0.645
SD * Mkt Dyn -> PSA	0.1194	0.357	0.3343	0.762

Note: PSA- patient satisfaction; Comm-Communication; Compen-Compensation, Man. Sup-Management Support; Train-Training; Wel-Welfare System. Comp-Competitive Intensity; Mkt. Dyn-Market Dynamism; Gov. Regu-Government Regulation; Bench – Benchmarking; CPI-Continuous Process Improvement; HRM-Human Resource Management; SD-Service Design; QA – Quality Assurance; INFO – Information and Analysis; ML – Management leadership.

Source: Field Survey (2022)

The moderating effect of contextual factors on total quality management and patient satisfaction is presented in Table 17.

### **Competitive intensity as a moderating variable between Total Quality management and patient satisfaction**

From Table 18, competitive intensity failed to moderate the relationship between benchmarking and patient satisfaction [ $B = -0.3762$ ;  $t(468) = 0.795$ ;  $p > 0.05$ ]. This indicates that, irrespective of how intense the

competition in the industry is, benchmarking does not affect the satisfaction that patients enjoy.

Competitive intensity moderated the relationship between Continuous Process Improvement and patient satisfaction [ $B = 1.9974$ ;  $t(468) = 3.892$ ;  $p < 0.05$ ]. Competitive intensity is the extent to which the hospital within the health sector exert pressure on one another. When the competition within the industry is strong, companies put in place proper structures to improve their operations. As the hospital keeps on improving their services, the intensity in the competition in the industry would improve the satisfaction that patients get from the hospital. Some level of competition is healthy because it acts as an impetus for innovation within organizations. Innovation would be reflected in the operations of the hospital. The result is consistent with the study by Mortazavi et al. (2009).

Competitive intensity moderated the relationship between human resource management and patient satisfaction [ $B = 1.9974$ ;  $t(468) = 1.2701$ ;  $p < 0.05$ ]. Competitive intensity was moderated at a significance level of 5 percent. As proper human resource management can influence patient satisfaction, the intensity of the competition existing in the industry would massage the decisions undertaken in relation to the human resource. Human resources would be trained appropriately in order to improve their customer relationship management. The results from the study confirms with the study by Durand et al. (2018). They found that competitive intensity plays a significant role in terms of influencing the level of satisfaction that patients usually gain.



Competitive intensity moderated the relationship between Information and analysis and patient satisfaction [ $B = 0.9349$ ;  $t(468) = 2.0537$ ;  $p < 0.05$ ]. The intensity of the competition in industry has an implication on the type or kind of information system and analysis to be implemented in order to improve patient satisfaction. Every institution always puts in place measures to get competitive advantage over its competitors. Competitive intensity would therefore influence the relationship between information and analysis and patient satisfactions. The competition would improve the hospital's information and analysis which would reflect in the satisfaction that patients get. Gorsic et al. (2017) found similar result when they studied the role of competitive intensity on the technology and customer satisfaction relationship. In their study, they found that, competitive intensity had a significant moderating role on the information and analysis and patient satisfaction underpinning the study.

Competitive intensity moderated the relationship between Management Leadership and patient satisfaction [ $B = 0.6778$ ;  $t(468) = 2.8692$ ;  $p < 0.05$ ]. The leadership style of staffs has effect on patient satisfaction. The competition in the market would also affect the kind of leadership style to employ in management operations and affairs at the hospital. This explains that, competitive intensity would influence better the relationship between management leadership and patient satisfaction.

Competitive intensity failed to moderate the relationship between quality assurance and patient satisfaction [ $B = 0.1159$ ;  $t(468) = 0.3621$ ;  $p > 0.05$ ]. Irrespective of the level of competition existing within the health sector, quality assurance's relationship with patient satisfaction is stable. The

intensity of rivalry among competitors in an industry refers to the extent to which firms within an industry put pressure on one another and limit each other's profit potential. If rivalry is fierce, then competitors are trying to steal profit and market share from one another. The study's results show that, the intensity in the industry does not influence the relationship between quality assurance and patient satisfaction.

Competitive intensity failed to moderate the relationship between service design and patient satisfaction [ $B = -0.2713$ ;  $t(468) = 0.843$ ;  $p > 0.05$ ]. Also, the relationship between design of the services rendered by the hospital and the satisfaction that patients acquire had no effect as a result of competitive intensity. Irrespective of the extent to which the hospitals within the health sector put pressure on one another and limit each other's profit potential, relationship between service design and patient satisfaction was constant.

#### **Government regulation as a moderating variable between Total Quality management and patient satisfaction**

Government regulations failed to moderate the relationship between benchmarking and patient satisfaction [ $B = 0.1536$ ;  $t(468) = 0.286$ ;  $p > 0.05$ ]. The operations of every institution in a country are expected to follow the strict rules and regulations governing the country. These regulations are broadly defined as imposition of rules by government, backed by the use of penalties that are intended specifically to modify the economic behaviour of individuals and firms in the private sector. Usually, every decision undertaken by the government institution of which benchmarking is one of them, is highly dependent on the government regulations. However, the study found that there

was no moderating relationship between benchmarking and patient satisfaction. Abbas (2020) in his study found that government regulations moderate the relationship between benchmarking and the satisfaction of customers. Al-Shraah et al. (2022) on the other hand found an opposing result.

Government regulation moderated the relationship between continuous process improvement and patient satisfaction [ $B = 1.5932$ ;  $t(468) = 2.5615$ ;  $p < 0.05$ ]. Governance regulation was significant at 5 percent on the relationship between continuous process improvement and patient satisfaction. The regulations given by the government would decide the direction of the process improvement. Proper government regulations would influence how continuous process improvement influence patient satisfaction.

Government regulation moderated the relationship between human resource management and patient satisfaction [ $B = 0.5354$ ;  $t(468) = 1.6209$ ;  $p < 0.10$ ]. The government regulations usually include the duties that human resource managers are supposed to undertake. These regulations usually depict positive activities that would influence the satisfaction that patients enjoy at the hospital. Based on this, the study found that in the mist of appropriate government regulations which enhances the activities of human resource management, human resources would influence the satisfaction that patients acquire from the hospital. The results confirm with the study by Ashar et al. (2008). They found that regulations from authority can influence the relationship between staffs and customer or patient satisfaction at the hospital or company.

Government regulations failed to moderate the relationship between information and analysis and patient satisfaction [ $B = -0.4723$ ;  $t(468) =$

1.1512;  $p > 0.05$ ]. As the result from the table showed, irrespective of the rules and regulations that the government order the hospital to undertake in relation to their information and analysis, the management of the hospital would always choose a system that would efficient for them. This explains why government regulations failed to moderate the relationship between these variables. Patient satisfaction would not change even if there is a proper regulation from the government which enhances information and analysis. In order to raise enough funds, management has their peculiar ways of analysing the information of patients. Regardless of the government regulations, information and analysis would not influence patient satisfaction.

Government regulation moderated the relationship between management leadership and patient satisfaction [ $B = 0.6338$ ;  $t(468) = 2.5502$ ;  $p < 0.05$ ]. As explained in the previous objectives, management leadership is the ability of managers to influence employees. As government regulations are likely to prevent managers from acting in a particular way, which can moderate the relationship between management leadership and patient satisfaction. The level of the moderation was significant at 5 percent. Proper government regulations that enhance and improves management leadership enable the leadership of the management to influence the satisfaction that patients enjoy at the hospital. This confirms with the study by Ekong et al. (2020) who found the significance of government regulation on patient satisfactions.

Government regulation moderated the relationship between quality assurance and patient satisfaction [ $B = 0.7656$ ;  $t(468) = 1.936$ ;  $p < 0.05$ ]. Government regulations would enhance the effect that quality assurance has

on patient satisfaction. Government regulations usually detect the level of quality services that the hospital must provide. This can moderate the relationship between these variables. As the government orders them to maintain a desired level of quality in a service the hospital provides, especially by means of attention to every stage of the process of delivery or production through government regulations, patients would also enjoy the maximum satisfaction at the hospital. This would boost the hospital's revenue and operations.

Government regulations failed to moderate the relationship between Service Design and patient satisfaction [ $B = -0.242$ ;  $t(468) = 0.7184$ ;  $p > 0.05$ ]. Also, government regulations couldn't enhance the relationship that service design has on patient satisfaction. Irrespective of the level of government regulations, service design would not influence the level of satisfaction that patients get.

#### **Market dynamism as a moderating variable between Total Quality management and patient satisfaction**

Market dynamism moderated the relationship between Benchmarking and patient satisfaction [ $B = 0.5585$ ;  $t(468) = 1.8088$ ;  $p < 0.10$ ]. Market dynamism moderated the relationship between total quality management and patient satisfaction at 5 percent. Market dynamics are forces that will impact prices and the behaviours of producers and consumers. In a market, these forces create pricing signals which result from the fluctuation of supply and demand for a given product or service. The study found that market dynamism had a positive moderating impact. That is, when the forces in the market keeps on changing, benchmarking influences satisfaction of patients.

Performing benchmarking allows the hospital to identify areas for improvement to get the hospital on par with the growth and success of other hospital in health sector. By assessing what other companies are doing successfully, the hospital can develop a plan to boost performance and take advantage of opportunities. This can be effective when the market dynamisms are available. The changes in the market variables enable hospital to act on the gaps that the dynamisms create. Kazley et al. (2015) found a similar result in their study on market forces related to hospitals' patient satisfaction ratings. In their study, they found that during market dynamism, benchmarking seeks to influence the satisfaction that patients acquire.

Market dynamism failed to moderate the relationship between continuous process improvement and patient satisfaction [ $B = -0.2216$ ;  $t(468) = 0.9743$ ;  $p > 0.05$ ]. That is, during the changes in the market variables, the continuous process that the hospital improves would not affect the satisfaction that patients Irrespective of the dynamisms that exists in the market, the processes that the hospital improves would not affect the satisfaction that patients get. This result contradicts with the study Garcia-Villaverde et al. (2020) who found that market dynamisms moderated the relationship between continuous process improvement and patient satisfaction.

Market dynamism failed to moderate the relationship between human resource management and patient satisfaction [ $B = 0.4251$ ;  $t(468) = 1.0936$ ;  $p > 0.05$ ]. Market dynamism also could not enhance the relationship between human resource management and patient satisfaction. Regardless of the dynamisms in the market, human resource management decisions would not influence patient satisfaction. Human resource management is responsible for

the recruitment, selection, training, and motivation of the organization's employees.

Human resource management is therefore concerned with the fundamental task of defining and analyzing jobs in organizations. Usually, human resources managers undertake their role by considering the external environment. The findings reported contradicts the underlying principles. The findings report that market dynamism does not influence the relationship between human resource management and patient satisfaction. The study contradicts with the study by Anwa and Abdullah (2021) who found that external factors such as market conditions influences the relationship between human resource management and customer satisfaction.

Market dynamism moderated the relationship between information and analysis and patient satisfaction [ $B=0.5665$ ;  $t(468) = 1.5853$ ;  $p < 0.10$ ]. The level of the moderation was significant at 10 percent significance level. Market dynamism comes with changes in the variables in the market. These variations usually influence the way information is being analysed at the hospital. The hospital usually choses a specific information and analysis due to the dynamisms in the market. Based on this, it is likely to influence the satisfaction that employees get from the hospital. The study's results therefore explains that as the market changes, information and analysis influences patient satisfaction. Similar result was report by Park et al. (2019) who also stated that information plays key role in customer satisfaction when the market copes with the changes in customer needs, technology and other factors.

Market dynamism failed to moderate the relationship between Management leadership and patient satisfaction [ $B=-0.6493$ ;  $t(468) = 0.8343$ ;

$p > 0.05$ ]. The study results showed that the effect that management leadership has on patient satisfaction has no relationship with the market dynamism. That is, irrespective of the level of dynamisms that exists in the market, the leadership that management portrays has no effect on the level of satisfaction that they achieve.

Market dynamism moderated the relationship between quality assurance and patient satisfaction [ $B=0.6357$ ;  $t(468) = 2.1734$ ;  $p < 0.05$ ]. The moderation was significant at a significance level of 5 percent. A dynamic market is one that is in a rapidly changing business environment. In order to understand what makes a market dynamic, it is necessary to understand the market in which the business or business enterprise operates. The changes existing in the market causes the hospital the enhance the quality they give to patients. This quality enhancement would influence patient satisfaction. Customers always choose quality. Proving a proper quality therefore enhance the satisfaction that patients get from the hospital. Hospitals usually prefers to cope with the current trends in the market. These trends influence the level of quality assurances that the hospital would provide. The finding is consistent with Manzuma-Ndaaba et al. (2018). They found that dynamisms in the market influences the customer satisfaction.

Market dynamism failed to moderate the relationship between Service design and patient satisfaction [ $B=0.1194$ ;  $t(468) = 0.3343$ ;  $p > 0.05$ ]. The market dynamism did not have any influence on the relationship between service design and patient satisfaction. This indicates that, irrespective of how variable the market conditions are, the effect that service design has on patient satisfaction is insignificant.



### **Mediating role of internal marketing on the relationship between total quality management and patient satisfaction**

Given that the majority of internal marketing and total quality management components have a considerable impact on patient satisfaction. A test for mediation was possible. As Nitzl (2016) had stated, the sole need for proving a mediation effect is a sizable indirect impact. The method described by Hair et al. (2017) included bootstrapping to investigate the mediating role of internal marketing on the link between overall quality management and patient satisfaction.

The seven components of total quality management were management leadership, benchmarking, continuous process improvement, service design, human resource management, quality assurance, and information and analysis, while the five components of internal marketing, the mediating variable, were welfare systems, training, compensation, communication, and management support. The association between each element of overall quality management and patient satisfaction was mediated by each internal marketing component.

The results of the total effect are presented in Table 18. It indicates the significance of every path hypothesized in the model.

**Table 18: Indirect relationship between Total Quality Management and Patient Satisfaction**

	<b>T-statistics</b>	<b>P-value</b>	<b>Decisions</b>
ML->Wel->PS	3.0257	0.011	Supported
ML->Train->PS	3.9421	0.000	Supported
ML->Compen->PS	3.7342	0.003	Supported
ML->Comm->PS	10.7831	0.000	Supported
ML->Man. Supp->PS	3.5677	0.009	Supported
Bench->Wel->PS	3.7741	0.002	Supported
Bench->Train->PS	0.0420	0.918	Not Supported
Bench->Compen->PS	3.8233	0.000	Supported
Bench->Comm->PS	0.3285	0.799	Not Supported
Bench->Man. Supp->PS	0.8667	0.438	Not Supported
CPI->Wel->PS	4.2905	0.000	Supported
CPI->Train->PS	4.2169	0.000	Supported
CPI->Compen->PS	5.0023	0.000	Supported
CPI->Comm->PS	9.1087	0.000	Supported
CPI->Man. Supp->PS	7.7387	0.000	Supported
SD->Wel->PS	3.0477	0.005	Supported
SD->Train->PS	3.4566	0.002	Supported
SD->Compen->PS	0.0531	0.891	Not Supported
SD->Comm->PS	3.8233	0.000	Supported
SD->Man. Supp->PS	0.4396	0.688	Not Supported
HRM->Wel->PS	2.3355	0.011	Supported
HRM->Train->PS	0.7318	0.592	Not Supported
HRM->Compen->PS	4.8782	0.000	Supported
HRM->Comm->PS	4.3438	0.000	Supported
HRM->Man. Supp->PS	5.5872	0.000	Supported
QA->Wel->PS	2.0298	0.039	Supported
QA->Train->PS	0.1136	0.782	Not Supported
QA->Compen->PS	4.5827	0.000	Supported
QA->Comm->PS	1.1069	0.399	Not Supported
QA->Man. Supp->PS	6.274	0.000	Supported
INFO->Wel->PS	8.3154	0.000	Supported
INFO->Train->PS	2.4959	0.028	Supported
INFO->Compen->PS	10.6077	0.000	Supported
INFO->Comm->PS	0.1238	0.739	Not Supported
INFO->Man. Supp->PS	1.8615	0.061	Supported

*Note: PSA- Patient Satisfaction; Comm - Communication; Compen - Compensation, Man. Sup-Management Support; Train-Training; Wel-Welfare System. Comp-Competitive Intensity; Mkt. Dyn - Market Dynamism; Gov. Regu-Government Regulation; Bench – Benchmarking; CPI-Continuous Process Improvement; HRM-Human Resource Management; SD-Service Design; QA – Quality Assurance; INFO – Information and Analysis; ML – Management leadership.*

Source: Field Survey (2022)

### **Welfare as a mediating variable between total quality management and patient satisfaction**

There was a significant indirect relationship through welfare between Management Leadership and Patient Satisfaction. That is, welfare mediated the relationship between Management Leadership and Patient Satisfaction [ $t(468) = 3.0257; p < 0.05$ ]. The significance level of the mediating variable was significant at 5 percent. As the direct relationship between management leadership and patient satisfaction was significant, the indirect effect was also significant. This indicates that, welfare had a partial mediating effect on the relationship between management leadership and patient satisfaction. Thus, management leadership can influence patient satisfaction when there is an effective patient welfare service. Proper management leadership styles and proper welfare policies for patients and staffs would therefore reflect in the satisfaction that patients acquire from the hospital.

The results also showed that, welfare mediated the relationship between benchmarking and patient satisfaction [ $t(468) = 3.7741; p < 0.05$ ]. The indirect effect between benchmarking and patient satisfaction was significant at 5 percent. However, the direct relationship between benchmarking and patient satisfaction was insignificant. This explains that, welfare acted as full mediating variable in the relationship between benchmarking and patient satisfaction. Benchmarking, which refers to the process of measuring the performance of the hospital's operations against a competitor in the same health industry, has no significant effect on patient satisfaction. When hospitals consider the welfare of the patients, and employees, the benchmarking from competitors would enable the hospital to

introduce a welfare policy which would enhance the satisfactions that patients get from the hospital.

Welfare also mediated the relationship between continuous process improvement and patient satisfaction [ $t(468) = 4.2905; p < 0.05$ ]. Welfare mediated the relationship between continuous process improvement and patient satisfaction at 5 percent. In relation to the direct effect, continuous process improvement had insignificant effect on patient satisfaction. The indirect was significant. This indicates that, welfare had a full mediating impact on the relationship between continuous process improvement on patient satisfaction. The finding indicates that continuous process improvement is significant on patients' satisfaction when the hospital institutes welfare policies for the employees and the patients.

Welfare also mediated the relationship between service design and patient satisfaction [ $t(468) = 3.0477; p < 0.05$ ]. Welfare mediates the relationship between service design and patient satisfaction. The direct relationship between service design and patient satisfaction was insignificant. This indicates that welfare had a full mediating role between service design and patient satisfaction. Proper design of the delivery service of hospitals would consider welfare of its customers or patients. This would therefore influence patients' satisfaction. Welfare policies which are founded on the basis of altruism, trust, competence, and patient interest, patient autonomy, including educating and empowering patients to make appropriate medical decisions and social justice can influence the way services are deigned at the hospital. Service design through effective welfare policies would influence patient satisfaction. The result is consistent with Legeby et al. (2018) who

found that welfare and service design have positive effect on customers satisfaction.

Welfare also mediated the relationship between human resource management and patient satisfaction [ $t(468) = 2.3355; p < 0.05$ ]. The results showed that the indirect relationship between human resource management and patient satisfaction through patient satisfaction was significant. Similarly, the direct relationship between human resource management and patient's satisfaction was also significant. This indicates welfare had a partial mediating role on the relationship between human resource management and patient satisfaction. The role of human resources management is to nurture and support employees in ensuring a positive workplace environment.

Human resources management is usually centered on the employees. However, patients' satisfaction is also crucial to the hospital. As human resources are protected, it is also necessary for the hospital patient's satisfaction to be managed. Welfare policies such as patient care policies and data privacy would indicate how safe patients would be when these policies are implemented. Human resources management through proper welfare policies influence patients' satisfaction. Malik (2018) found similar result in his study on strategic human resource management and employment relations.

Welfare also mediated the relationship between quality assurance and patient satisfaction [ $t(468) = 2.0298; p < 0.05$ ]. The result showed that, the indirect relationship between quality assurance through welfare and patient satisfaction was significant. The direct relationship between quality assurance and patient satisfaction was significant. This proves that, welfare had a partial mediating role on the relationship between quality assurance and patient

satisfaction. Quality assurance that has quality welfare policies embedded in them would enhance the satisfaction that patients seek to achieve. Maintaining the desired level of quality in service delivery, especially by means of attention to every stage of the process of delivery or production with proper welfare policies would influence patient satisfactions. Similar results were reported by Frawley et al. (2019) who studied quality assurance at hotel management institutions in Australia.

Welfare also mediated the relationship between information and analysis and patient satisfaction [ $t(468) = 8.3154; p < 0.05$ ]. The result showed that the indirect relationship between information and analysis and patient satisfaction was significant. The direct relationship between information and analysis and patient satisfaction was insignificant. The mediating role of welfare on the relationship between information and analysis and patient satisfaction was full. Full mediation is where the direct relationship is insignificant but the indirect is significant. Information and analysis alone would not have a significant effect on patient satisfaction. However, welfare policy such as patient data protection policies would give the patients trust in the hospital operations which would enhance the satisfaction that patients get.

#### **Training as a mediating variable between total quality management and patient satisfaction**

Training mediated the relationship between management leadership and patient satisfaction [ $t(468) = 3.9421; p < 0.05$ ]. From the result, the direct relationship between management leadership and patient satisfaction was significant. Whereas the indirect relationship was significant. This indicates that, training had a partial mediating role between management leadership and

patient satisfaction. Management leadership can enhance the training capacity of the hospital which would influence the satisfaction delivered to patients. Management leadership can incorporate training of customer relationship management which would enable staffs to manage and coordinate the business-customer relationship. This would reflect in satisfaction that patients get in the hospital. The results confirm the study by Asif et al. (2019).

Training failed to mediate the relationship between benchmarking and patient satisfaction [ $t(468) = 0.0420$ ;  $p > 0.05$ ]. As the direct relationship between benchmarking and patient satisfaction was not significant, the indirect relationship between benchmarking and patient satisfaction through training was not significant. This depicts that irrespective of the level of benchmarking the hospital undertakes, its effect on patient's satisfaction would be not be significant. This can be attributed to the kind of training regimes designed to be taken at the hospital. The objectives of the training might be attributed to something aside patient satisfaction. These explains why the training variable failed to mediate the relationship between benchmarking and patient satisfaction.

Training also mediated the relationship between continuous process improvement and patient satisfaction [ $t(468) = 4.2169$ ;  $p < 0.05$ ]. The direct relationship between continuous process improvement and patient satisfaction was not significant. However, the indirect relationship between continuous process improvement through training on patient satisfaction was significant. This shows that training had a full mediating role on the relationship between continuous process improvement and patient satisfaction. Continuously improving the process at the hospital would not give patients the satisfaction

they reserve. However, integrating training would enhance the effect that continuous process improvement would affect patient satisfaction.

Training also mediated the relationship between service design and patient satisfaction [ $t(468) = 3.4566$ ;  $p < 0.05$ ]. The direct effect between service design and patient satisfaction was not significant. However, the indirect relationship between service design and patient satisfaction was significant. This indicates training had a full mediating role in the relationship between service design and patient satisfaction. Proper services designed for the hospital with training of staffs on ways to undertake this service would rather enhance the satisfaction that patients get.

Training failed to mediate the relationship between human resource management and patient satisfaction [ $t(468) = 0.7318$ ;  $p > 0.05$ ]. Although there was a significant relationship between human resource management and patient satisfaction. The indirect relationship between human resource management and patient satisfaction through training was not significant. This also explains that, irrespective of the training organised, human resource management does not influence patient's satisfaction. This can be attributed to the fact that, training organised falls outside the ways of improving patient's satisfactions.

Training failed to mediate the relationship between quality assurance patient satisfaction [ $t(468) = 0.1136$ ;  $p > 0.05$ ]. The direct relationship between quality assurance and patient satisfaction was significant. The indirect relationship on the other hand was not significant. This indicates that, irrespective of the quality that hospitals assure its patients, training plays no role in enhancing the satisfaction that patients seek.



Training also mediated the relationship between information and analysis and patient satisfaction [ $t(468) = 2.4959; p < 0.05$ ]. The direct relationship between information and analysis and patient satisfaction was not significant. However, the indirect relationship between information and analysis and patient satisfaction through training was significant. This indicates that training had a full mediating role on the relationship between information and analysis and patient satisfaction at hospital. Information and analysis would give proper training which in return ensure patient satisfaction.

#### **Compensation as a mediating variable between total quality management and patient satisfaction**

Compensation mediated the relationship between management leadership and patient satisfaction [ $t(468) = 3.7342; p < 0.05$ ]. The direct relationship between management leadership and patient satisfaction was significant. The indirect relationship between management leadership and patient satisfaction through compensation was also significant. This indicates that compensation partially moderates the relationship between management and patient satisfaction. As management implements the appropriate leadership style, staffs are well compensated. This would give staffs the reason to serve patients well which would improve on the satisfaction that patients get during their visit to the hospital. Similar results were reported by Darma and Supriyanto (2017) and Spencer et al. (2016).

Compensation also mediated the relationship between benchmarking and patient satisfaction [ $t(468) = 3.8233; p < 0.05$ ]. The direct relationship between benchmarking and patient satisfaction was not significant. However, the indirect relationship between benchmarking and patient satisfaction was

significant. This explains that compensation had a full mediating role on the relationship between benchmarking and patient satisfaction. Understudying what other institutions are doing to improve their service delivery would lead to the introduction of appropriate and better compensation packages.

Introduction of these compensation packages in the organisation would motivate the staffs which would enhance their service delivery to the patients that visit the organisation. Proper compensation policies as a result of benchmarking would enhance the satisfaction that patients get from the hospital. This result confirms with the findings from Gonzalez (2019) who studied on improving customer satisfaction of health facility. They found that, benchmarking and compensation had a significant effect on patient satisfactions.

Compensation also mediated the relationship between continuous process improvement and patient satisfaction [ $t(468) = 5.0023; p < 0.05$ ]. The direct relationship between continuous process improvement was insignificant. The indirect effect of continuous process improvement on patient satisfaction through compensation was significant. This explains that compensation had a full mediating effect on the relationship between continuous process improvement and patient satisfaction. One way of ensuring that the process the hospital utilizes is improved is through provision of competitive compensation to employees. This would enhance the satisfaction that patients get.

Compensation failed to mediate the relationship between service design and patient satisfaction [ $t(468) = 0.0531; p > 0.05$ ]. The direct relationship between service design and patient satisfaction was significant. However, the indirect relationship between service design and patient

satisfaction through compensation was not significant. This indicates that, compensation could not mediate the relationship between service design and patient satisfaction. Irrespective of how the service being rendered is improved, compensation would not enhance the satisfaction these patients.

Compensation also mediated the relationship between human resource management and patient satisfaction [ $t(468) = 4.8782; p < 0.05$ ]. The direct relationship between human resource management and patient satisfaction was significant. Also, the indirect relationship between human resource management and patient satisfaction through compensation was significant. This indicates that, compensation had a partial mediating effect on the relationship between human resource management and patient satisfaction. One of the components of human resources management is employee compensation. This indicates that, human resources management would provide an appropriate compensation to employees which would enhance their service to patient. This would give satisfaction to patients with the services they seek to receive.

Compensation also mediated the relationship between quality assurance and patient satisfaction [ $t(468) = 4.5827; p < 0.05$ ]. The direct relationship between quality assurance and patient satisfaction was significant. Similarly, the indirect relationship between quality assurance and patient satisfaction through compensation also showed a significant relationship. This indicates that compensation had a partial mediating relationship between quality assurance and patient satisfaction. As hospitals seek to improve their services, they usually implement and institute compensation packages in their

service delivery. This would enhance the satisfaction that patients get from the hospital service.

Compensation again mediated the relationship between information and analysis and patient satisfaction [ $t(468) = 4.5827; p < 0.05$ ]. The direct relationship between information and analysis and patient satisfaction was not significant. However, the indirect relationship between information and analysis and patient satisfaction through compensation was significant. This indicates that compensation has a full mediating role on the relationship between information and analysis and patient satisfaction. As the hospital seeks to improve on the information and analysis, the provision of competitive compensation to staffs at the information department would boost their morale. This enables them to ensure proper documentation of information and data collected from patients. This would reduce the stress patients usually go through in resubmitting their particulars to the hospital. Patient's level of satisfaction would therefore be improved as a result of information and analysis through compensation of staff.

#### **Communication as a mediating variable between total quality management and patient satisfaction**

Communication mediated the relationship between management leadership and patient satisfaction [ $t(468) = 10.7831; p < 0.05$ ]. The direct relationship between management leadership and patient satisfaction was significant. Also, the indirect relationship between management leadership and patient satisfaction through communication was significant. This indicates that, there was a partial mediating effect of communication on the relationship between management leadership and patient satisfaction. Management

leadership constitutes proper information dissemination to both staffs and patients that come to hospital for service. This would enhance the satisfaction that patients seek to achieve. Proper communication through the management to patients would make patient feel loved and wanted which would enhance the satisfaction they receive from the services rendered by the hospital.

Communication failed to mediate the relationship between benchmarking and patient satisfaction [ $t(468) = 0.0531; p > 0.05$ ]. The direct relationship between benchmarking and patient satisfaction was not significant. Similar results were reported in relation to the mediating role of communication on the relationship between benchmarking and patient satisfaction.

Communication also mediated the relationship between continuous process improvement and patient satisfaction [ $t(468) = 9.1087; p < 0.05$ ]. The direct relationship between continuous process improvement and patient satisfaction was insignificant. The indirect relationship between continuous process improvement and patient satisfaction was significant. This indicates that communication acted as full mediating variable in the relationship between continuous process improvement and patient satisfaction. The improvement in process can constitute enhancement of the communication channels that exist within the hospital. Proper information would be communicated to patients which would enhance their satisfaction.

Communication also mediated the relationship between service design and patient satisfaction [ $t(468) = 3.8233; p < 0.05$ ]. The direct relationship between service design and patient satisfaction was insignificant. However, the indirect relationship between service design and patient satisfaction was

significant. This indicates that, communication fully mediates the relationship between service design and patient satisfaction. Effective service design also includes proper communication among the agents within the service delivery process. Service design would enhance the communication network which would give patients the satisfaction they seek for. This indicates that, through proper and effective communication, service design can enhance patient's satisfaction.

Communication also mediated the relationship between human resource management and patient satisfaction [ $t(468) = 4.3438; p < 0.05$ ]. The direct effect between human resource management and patient satisfaction was significant. Also, the indirect relationship between human resource management and patient satisfaction was also significant through communication. This indicates that, communication had a partial mediating role on the relationship between human resource management and patient satisfaction. As human resource management can improve the patient's satisfaction, the approach of which information is communicated can also enhance the satisfaction that patients get.

Communication failed to mediated the relationship between quality assurance and patient satisfaction [ $t(468) = 1.1069; p > 0.05$ ]. The direct relationship between quality assurance and patient satisfaction was significant. However, the indirect relationship between quality assurance and patient satisfaction was insignificant. Irrespective of the level of communication, quality assurance would not improve patient satisfaction.

Communication failed to mediate the relationship between information and analysis and patient satisfaction [ $t(468) = 0.1238; p > 0.05$ ]. The direct

relationship between information and analysis and patient satisfaction was insignificant. Similarly, the indirect relationship between information and analysis through communication was also insignificant. This confirms that communication cannot mediate the relationship between information and analysis and patient satisfaction. Lotfi, et al. (2019) found a contradicting result as they found that communication mediates the relationship between information and analysis and patient satisfaction. According to their study, proper communication can influence the information and analysis which can enhance the patient satisfaction as well.

#### **Management Support as a mediating variable between total quality management and patient satisfaction**

Management support mediated the relationship between management leadership and patient satisfaction [ $t(468) = 3.5677; p < 0.05$ ]. The direct relationship between management leadership and patient satisfaction was significant. The indirect relationship between management leadership and patient satisfaction through management support was significant. This showed that, management support had partial mediating effect on the relationship between management leadership and patient satisfaction. Management supporting the leadership style implemented by them would increase the trust staffs have in their effort. This would enable them to work extra hard which can enhance their way of delivering service to their patients. This would finally enhance the satisfaction patients get from the hospital.

Management support failed to mediate the relationship between benchmark and patient satisfaction [ $t(468) = 0.8667; p > 0.05$ ]. The direct relationship between benchmarking and patient satisfaction was not

significant. Similar result was reported in relation to the indirect relationship between benchmarking and patient satisfaction through management support. This indicates that irrespective of the support that management renders, benchmarking would not have significant effect on patient satisfaction. This can be attributed to the fact that the management support that is learnt from the benchmarking is not effective in the hospital environment. Benchmarking gives companies knowledge about what their competitors are doing right. Due to the dynamisms in the internal strength and weakness among competitors, management support system which has worked for a competitor might not work for the hospital. This explains why management support failed to mediate the relationship between benchmarking and patient satisfactions.

Management support also mediated the relationship between continuous process improvement and patient satisfaction [ $t(468) = 7.7387; p < 0.05$ ]. The direct relationship between continuous process improvement and patient satisfaction was not significant. The indirect relationship on the other hand, between continuous process improvement and patient satisfaction was significant. This showed that, management support has a full mediating effect on the relationship between continuous process improvement and patient satisfaction. Continuous process improvement would create an avenue which would allow management to support the systems and service the hospital renders.

Management support failed to mediate the relationship between service design and patient satisfaction [ $t(468) = 0.4396; p > 0.05$ ]. The direct relationship between service design and patient satisfaction was not significant. Similar results were recorded in relation to the indirect effect



between service design and patient satisfaction. This indicates that, irrespective of the service designed, the support that management give would not have any significant effect on patients' satisfaction.

Management support also mediated the relationship between human resource management and patient satisfaction [ $t(468) = 5.5872; p < 0.05$ ]. The direct relationship between human resource management was significant. The indirect relationship between human resource management and patient satisfaction through management support had a significant effect. This indicates that management support had a partial mediating role on the relationship between human resource management and patient satisfaction. Human resources management usually comes with roles which end up improving the efficacy and efficiency of the staffs. These policies to improve human resource would be effective when management supports them. These would enhance the satisfaction that patients get.

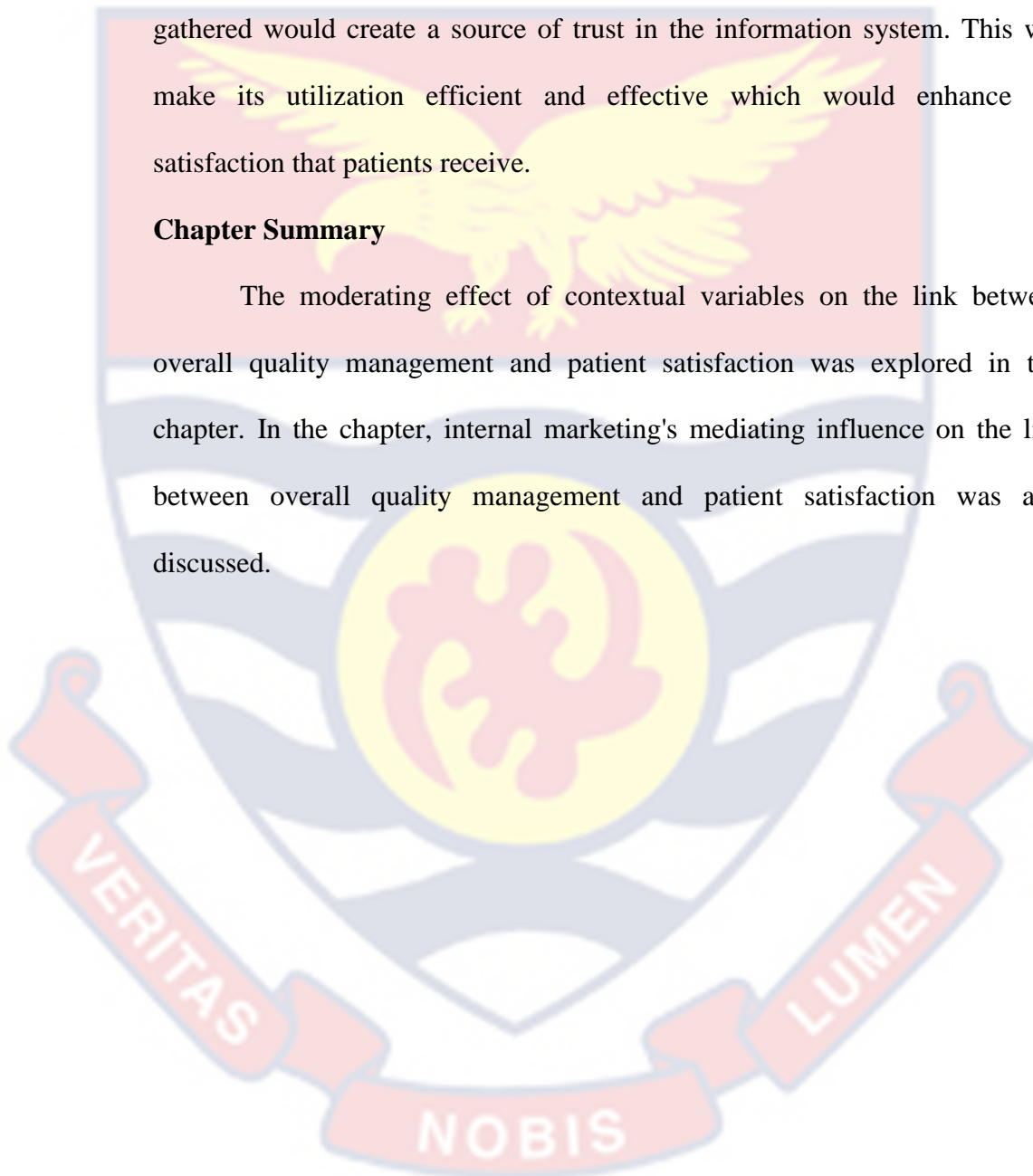
Management support also mediated the relationship between quality assurance and patient satisfaction [ $t(468) = 6.274; p < 0.05$ ]. The direct relationship between quality assurance and benchmarking was significant. The indirect relationship between quality assurance and patient satisfaction through management support was also significant. This indicates that management support partially mediates the relationship between quality assurance and patient satisfaction. As the firm ensure proper quality of service, management support would be required in order to enhance patients' satisfaction.

Management support again mediated the relationship between information and analysis and patient satisfaction [ $t(468) = 1.8615; p < 0.05$ ]. The direct relationship between information and analysis and patient

satisfaction was not significant whereas the indirect relationship between information and analysis and patient satisfaction was significant. This explains that, management support had a full mediating role. Support from management on the use of information and analysis of data and information gathered would create a source of trust in the information system. This will make its utilization efficient and effective which would enhance the satisfaction that patients receive.

### **Chapter Summary**

The moderating effect of contextual variables on the link between overall quality management and patient satisfaction was explored in this chapter. In the chapter, internal marketing's mediating influence on the link between overall quality management and patient satisfaction was also discussed.



## CHAPTER SIX

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### Introduction

The summary, conclusions and recommendations of the study are presented in this chapter. The study was conducted to examine the effect of total quality management, contextual factors, and internal marketing on patient satisfaction of teaching hospitals in Ghana. This chapter begun with the summary of the study. This was followed by the conclusion, recommendations and suggestions for further studies.

#### Summary of the Study

The main purpose of the study was to analyse the effect of total quality management, contextual factors, and internal marketing and patient satisfaction among teaching hospitals in Ghana. In order to achieve the purpose of the study, five specific objectives were stated. The specific objectives of the study were to:

1. analyse the effect of total quality management on patient satisfaction among teaching hospitals in Ghana.
2. examine the effect of contextual factors on patient satisfaction among teaching hospitals in Ghana.
3. investigate the effect of internal marketing on patient satisfaction among teaching hospitals in Ghana.
4. assess the moderating effect of contextual factors on the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana.

5. examine the mediating effect of internal marketing on the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana.

Total quality management was demarcated into seven components. These components were benchmarking, continuous process improvement, human resource management, management leadership, quality assurance and service design. Internal marketing on the other hand was also subdivided into five components. These were communication, compensation, management support, training and welfare. Also, contextual factors were subdivided into three components. These were competitive intensity, government regulations and market dynamism.

The study was centered on three theories. These three theories were resources-based theory, affective events theory and general contingency theory. The resource-based theory was used to analyse the direct relationship between total quality management and patient satisfaction, contextual factors and patient satisfaction and internal marketing and patient satisfaction among teaching hospitals in Ghana. Successively, the affective events theory was employed to elucidate the possible mediating role of internal marketing in the direct relationship between total quality management and patient satisfaction. Subsequently, the general contingency theory is deployed in explicating the likely moderating effect of contextual factors over the direct relationship between total quality management and patient satisfaction.

The study adopted the positivism philosophical paradigm in the analysing the objectives of the study. Since the research objectives of this study sought to test hypotheses, which are predictive-based, and the

investigator seeking to collect large data that can be measured numerically, the quantitative research approach was adopted for this study. Also, given that the research objectives of this study sought to explain the causes and effect among the variables of interest, the explanatory research design was adopted. This study is conducted in all five teaching hospitals in Ghana. Teaching hospitals play important roles in quality healthcare delivery in Ghana.

The five teaching hospitals are Korle-Bu Teaching Hospital, Komfo Anokye Teaching Hospital, Tamale Teaching Hospital, Cape Coast Teaching Hospital, and Ho Teaching Hospital (Ghana Health Service, 2021). A total sample size of 468 respondents were considered. The data collection instrument for the study was questionnaire. Three different sets of questionnaires were surveyed. One set was given to the frontliners. The second set was given to the employees whereas the final set was given to the patients to measure their level of satisfaction. Due to the nature of the study's objectives, the structural equation model was employed in analysing the objectives of the study.

### **Key Findings**

The first objective of the study was to analyse the effect of total quality management and patient satisfaction among teaching hospitals in Ghana. The study found that, human resource management had a positive and significant effect on patient satisfaction. Management leadership also had a positive and significant effect on patient satisfaction. Moreover, quality assurance as a component of total quality management had positive and significant effect on patient satisfaction.

The second objective of the study was to analyse the effect of contextual factors on patient satisfaction among teaching hospitals in Ghana. The study found that competitive intensity and government regulation had insignificant effect on patient satisfaction. Market dynamism which is also a component of contextual factor had a negative and significant effect on patient satisfaction among teaching hospitals in Ghana. Thus, as the dynamisms in the market increases, patient's satisfaction is likely to reduce.

The third objective of the study was to analyse the effect of internal marketing on patient satisfaction among teaching hospitals in Ghana. The study found that communication had a negative and significant effect on patient satisfaction. Also, compensation had a positive and significant effect on patient satisfaction. Management support had a positive and significant effect on patients' satisfaction among teaching hospitals in Ghana. Training had a negative and significant effect on patient's satisfaction. Finally, the study found that, welfare had a positive and significant effect on patient satisfaction among teaching hospitals in Ghana.

The fourth objective of the study was to assess the moderating effect of contextual factors on the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana. Competitive intensity failed to moderate the relationship between benchmarking and patient satisfaction. Competitive intensity moderated the relationship between Continuous Process Improvement and patient satisfaction. Competitive intensity moderated the relationship between human resource management and patient satisfaction. Competitive intensity moderated the relationship between Information and analysis and patient satisfaction. Competitive intensity

moderated the relationship between Management Leadership and patient satisfaction.

Government regulation moderated the relationship between continuous process improvement and patient satisfaction. Government regulation moderated the relationship between human resource management and patient satisfaction. Government regulation moderated the relationship between Management Leadership and patient satisfaction. Government regulation moderated the relationship between quality assurance and patient satisfaction. Market dynamism moderated the relationship between Benchmarking and patient satisfaction. Market dynamism moderated the relationship between information and analysis and patient satisfaction. Market dynamism moderated the relationship between quality assurance and patient satisfaction.

The fifth objective of the study was to examine the mediating effect of internal marketing on the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana. There was a significant indirect relationship through welfare between Management Leadership and Patient Satisfaction. The results also showed that, welfare mediated the relationship between benchmarking and patient satisfaction. Welfare also mediated the relationship between continuous process improvement and patient satisfaction. Welfare also mediated the relationship between service design and patient satisfaction.

Welfare also mediated the relationship between human resource management and patient satisfaction. Welfare also mediated the relationship between quality assurance and patient satisfaction. Welfare also mediated the relationship between information and analysis and patient satisfaction.

Training also mediated the relationship between management leadership and patient satisfaction. Training also mediated the relationship between continuous process improvement and patient satisfaction. Training also mediated the relationship between service design and patient satisfaction.

Training also mediated the relationship between information and analysis and patient satisfaction. Compensation also mediated the relationship between management leadership and patient satisfaction. Compensation also mediated the relationship between benchmark and patient satisfaction. Compensation also mediated the relationship between continuous process improvement and patient satisfaction. Compensation also mediated the relationship between human resource management and patient satisfaction. Compensation also mediated the relationship between quality assurance and patient satisfaction.

Compensation also mediated the relationship between information and analysis and patient satisfaction. Communication also mediated the relationship between management leadership and patient satisfaction. Communication also mediated the relationship between continuous process improvement and patient satisfaction. Communication also mediated the relationship between service design and patient satisfaction. Communication also mediated the relationship between human resource management and patient satisfaction. Management support also mediated the relationship between management leadership and patient satisfaction.

Management support also mediated the relationship between continuous process improvement and patient satisfaction. Management support also mediated the relationship between human resource management



and patient satisfaction. Management support also mediated the relationship between quality assurance and patient satisfaction. Management support also mediated the relationship between information and analysis and patient satisfaction.

### **Conclusions**

Based on the findings of the study, the following conclusions were made:

Total quality management (TQM) is a management strategy that emphasizes a continuous, organization-wide effort to maintain quality customer service and satisfaction. The study concluded that total quality management enhances and fosters patient satisfaction by delivering quality services that would keep patients coming back again. This implies that total quality management (TQM) which seeks to provide long-term success by providing unparalleled customer satisfaction through the constant delivery of quality health delivery services can ensure patients satisfaction in the hospital.

Based on the foregoing, the study concluded that internal marketing has significant positive effect on patient satisfaction among teaching hospitals in Ghana. This implies that, training proper training with competitive compensation policies are likely to motivate employees to ensure that patients are satisfied. Also, the study concludes that contextual factors influence the patient satisfaction among teaching hospitals in Ghana. This implies that, the dynamism and the competitive intensity in the market would influence the kind of policies managements put in place in order to enhance the satisfaction that patients get from the hospital.

Contextual factors moderated the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana. This also implies that; market dynamism can enhance the relationship between total quality management and patient satisfaction. The changes that exist in the environment would force management to improve their activities, which would enhance patient satisfaction in the long run. Finally, the study concludes that internal marketing mediates the relationship between total quality management and patient satisfaction among teaching hospitals in Ghana.

### **Recommendations**

Based on the findings, the following recommendations were made:

The study recommends that management of the teaching hospital should empower their employees to enhance their contribution towards patient satisfaction. This can be achieved by encouraging employee participation in decision making. Also, the management of teaching hospital should ensure free flow of information and enhance effective internal communication system to ensure effective communication within the organization. Since internal communication has a significant positive effect on patient satisfaction of teaching hospitals in Ghana.

Furthermore, employee training and development should be encouraged especially in their area of effective patient service since employee training and development was found to have significant positive effect on patient satisfaction. Well trained internal patients' means excellent services to external patients.

Teaching hospitals in Ghana should prioritize the implementation of Total Quality Management practices to improve patient satisfaction. This may involve establishing quality improvement teams, implementing evidence-based practices, and continuously monitoring and evaluating the quality of healthcare services.

Hospitals should focus on internal marketing efforts to ensure effective communication and engagement with their internal stakeholders, including healthcare providers, staff, and administrators. A well-informed and motivated internal team is more likely to provide better patient care and, in turn, positively impact patient satisfaction.

Understanding the external contextual factors that influence patient satisfaction is crucial. Hospitals should conduct regular assessments to identify these factors and adapt their strategies accordingly. Factors such as cultural norms, socio-economic conditions, and regional disparities may play a role in shaping patient satisfaction and need to be considered in service delivery.

Considering the moderating effect of contextual factors on the relationship between TQM and patient satisfaction, hospitals should tailor their TQM approaches to suit the specific needs and challenges of the local context. Flexibility and customization are essential to ensure TQM practices align with the unique conditions of Ghanaian teaching hospitals.

Since internal marketing can mediate the relationship between TQM practices and patient satisfaction, hospitals should invest in enhancing their internal marketing efforts. Providing adequate training, incentives, and support to staff can contribute to better communication and a patient-centered approach.

It is essential for hospitals to continuously monitor patient satisfaction levels, TQM implementation, and internal marketing efforts. Regular evaluations can help identify areas of improvement and measure the effectiveness of implemented strategies.

Ghanaian teaching hospitals should collaborate with each other and with international healthcare institutions to share best practices, experiences, and knowledge. This collaboration can lead to better patient outcomes and improved satisfaction.

Establishing effective patient feedback mechanisms can provide hospitals with valuable insights into patient experiences and expectations. Hospitals should encourage patients to share their feedback and use that information to drive improvements in service delivery.

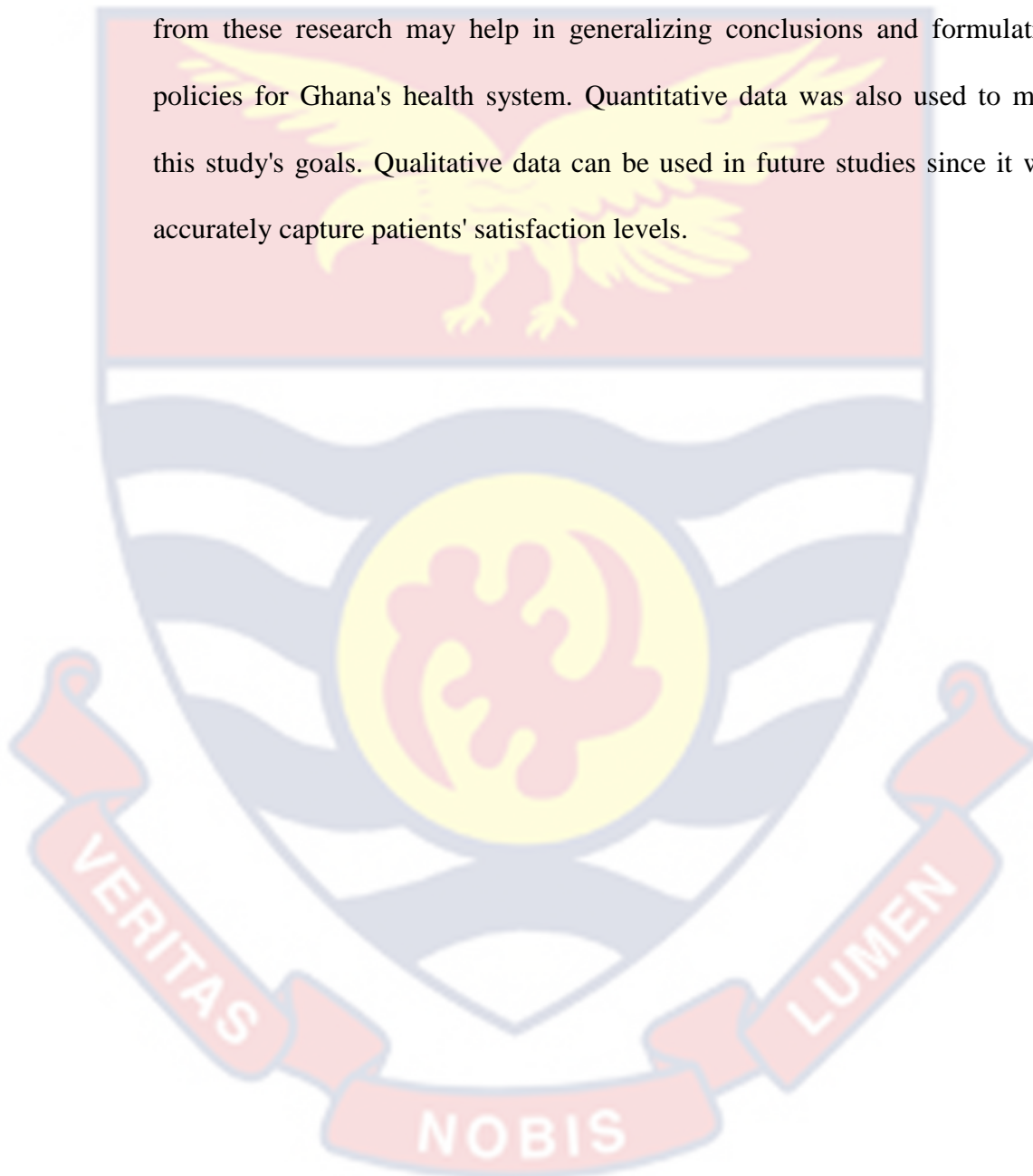
A skilled and motivated workforce is crucial for delivering quality healthcare services. Hospitals should invest in ongoing training and development programs for healthcare providers and staff to ensure they are well-equipped to meet patient needs.

### **Suggestions for Future Studies**

The study's findings were insightful into patient satisfaction, contextual factors, internal marketing, and total quality management methods, but they cannot be applied to Ghana's complete healthcare system as a whole. This is so because only teaching hospitals' opinions and recommendations were considered in the study. It was proposed that future study may concentrate on more comprehensive research by integrating different hospital types within the municipality or nation at large. In order to compare teaching hospitals and

other hospitals' entire quality management procedures, a comparison study might also be done.

To offer a broader perspective on the topics under investigation, additional respondents, in particular workers, may also be looked at. Results from these research may help in generalizing conclusions and formulating policies for Ghana's health system. Quantitative data was also used to meet this study's goals. Qualitative data can be used in future studies since it will accurately capture patients' satisfaction levels.



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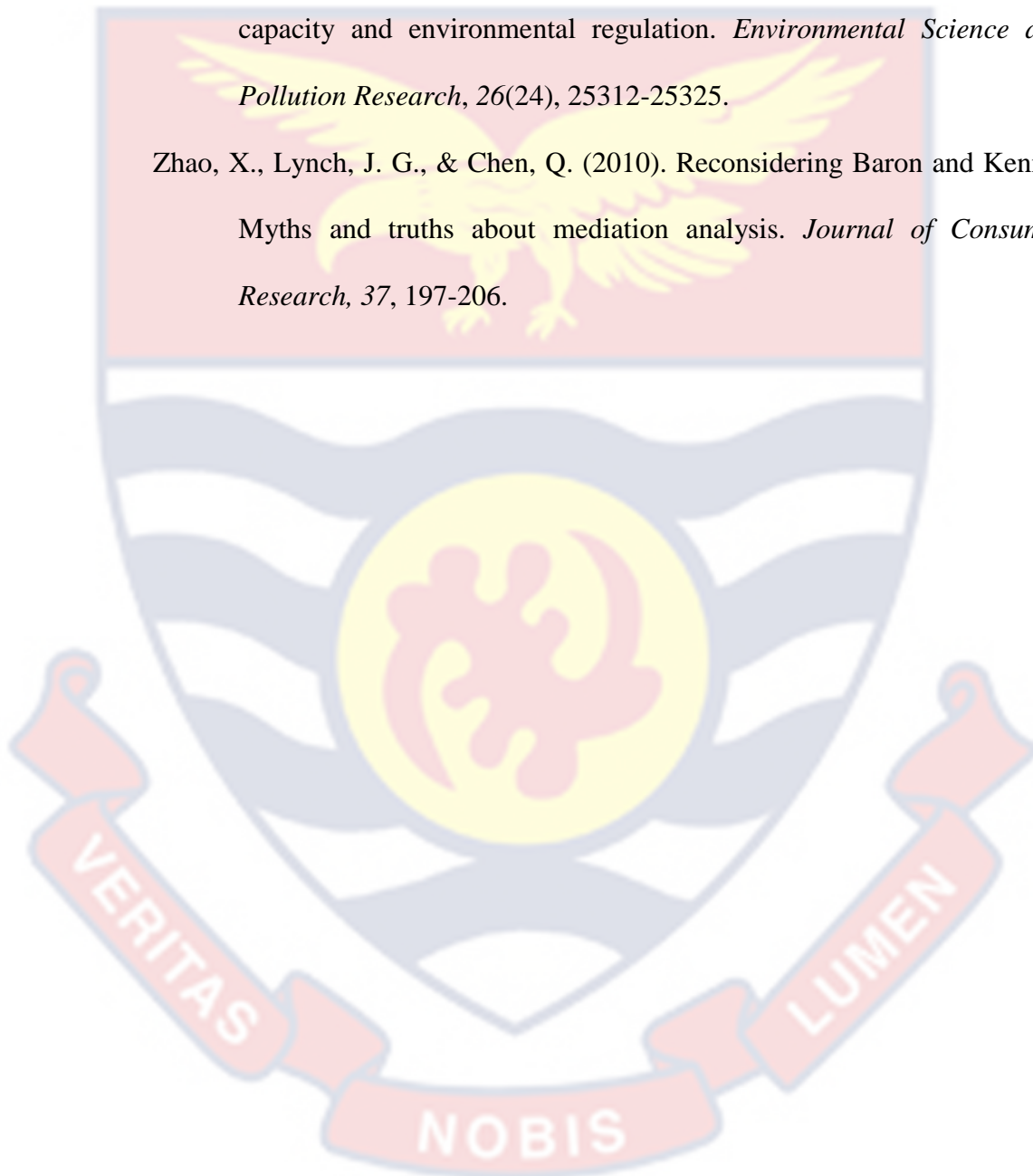
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## APPENDICES

## APPENDIX A

## QUESTIONNAIRES

## UNIVERSITY OF CAPE COAST

## QUESTIONNAIRE FOR EMPLOYEES

**Total Quality Management and Patient Satisfaction in Ghana: Role of Internal Marketing and Contextual Factors**

Dear Respondent,

My name is Isaac Tweneboah-Koduah, a PhD Student at the Department of Marketing and Supply Chain Management, School of Business, University of Cape Coast. This study forms part of the requirement for the award of my PhD Degree in Business Administration and it seeks to assess *the influence of total quality management on patient satisfaction: Exploring the mediating role of internal marketing and the moderating role of contextual factors.*

I am writing to ask for your help with my research. I would be grateful if you could spare about 45 minutes of your time to answer these questions for the research, with all honesty. There is no right or wrong answer. Your questionnaire is strictly anonymous and will only be read and used by myself. Participation is voluntary. In the event that anything is published from this research, no information supplied will be identifiable to you since only aggregated data will be reported in this study.

It is expected that the findings of this research will have implications for improvement in healthcare through policy formulation and management support in this hospital. I would be very grateful if I could get the completed questionnaire within a week. If you need any clarification on this questionnaire, its nature or its purpose, or you wish to be informed on the results of the study, do not hesitate to contact me on 050-601-6060 or email: [itkoduah@stu.ucc.edu.gh](mailto:itkoduah@stu.ucc.edu.gh). Thank you for your valuable time and input.

### Questionnaire Sections

#### Section A: Background Information

BIE1. Sex: a. Male [ ] b. Female [ ]

BIE2. Age in years: \_\_\_\_\_

BIE3. Job Schedule: \_\_\_\_\_

BIE4. Teaching Hospital: \_\_\_\_\_

#### Section B: Total Quality Management

Total quality management is a broad management philosophy that aims to constantly improve the production and delivery of services, following the needs of patients in a less costly, quicker, healthier and easy way, with the participation of all those working under the leadership. Please indicate your *level of agreement* to each of the following statements that relate to total quality management, by **circling** the appropriate number, on the scale:

*1=least agreement, 2=less agreement, 3=little agreement, 4=moderate agreement, 5=strong agreement, 6=stronger agreement, 7=strongest agreement.*

<i>Management Leadership</i>								
TML01	In our hospital, top management has long-term quality plans.	1	2	3	4	5	6	7
TML02	In our hospital, top management has set up clear quality goals.	1	2	3	4	5	6	7
TML03	In our regular meetings, top management always emphasizes the importance of service quality delivered to patients.	1	2	3	4	5	6	7
TML04	In our hospital, top management encourages us to make service quality a topmost priority.	1	2	3	4	5	6	7
TML05	In our hospital, top management often partakes in quality training activities.	1	2	3	4	5	6	7
<i>Benchmarking</i>								
TBM01	In our hospital, it is always emphasized that benchmarking is our strategy to achieve a better competitive position.	1	2	3	4	5	6	7
TBM02	We pay visit to other hospitals, internationally and locally to examine their practices.	1	2	3	4	5	6	7
TBM03	In our hospital, we conduct research to find out the best practices of other international	1	2	3	4	5	6	7

	and local policies.							
TBM04	Our hospital has a way of identifying a benchmarking subject.	1	2	3	4	5	6	7
TBM05	Our hospital has a collective way of identifying partners.	1	2	3	4	5	6	7
TBM06	Our hospital determines current competitive gap among other hospitals.	1	2	3	4	5	6	7
TBM07	Our hospital identifies the critical success factors to be benchmarked.	1	2	3	4	5	6	7
TBM08	Our hospital estimates future performance.	1	2	3	4	5	6	7
TBM09	Our hospital develops action plans after comparison.	1	2	3	4	5	6	7
<i>Continuous Process Improvement</i>								
TCI01	In our hospital, there is always an emphasis in all levels of various activities on continuous improvement.	1	2	3	4	5	6	7
TCI02	In our hospital, continuous improvement is emphasized to the employees in the training programs provided.	1	2	3	4	5	6	7
TCI03	In the policies of our hospital, improving quality is more important than the quantity or short term goals.	1	2	3	4	5	6	7
TCI04	In our hospital, all units and development believe that, they can serve better and survive in a highly competitive environment by implementing continuous improvement.	1	2	3	4	5	6	7
<i>Service Design</i>								
TSD01	It is our hospital policy to review thoroughly the new service design before its marketing.	1	2	3	4	5	6	7
TSD02	The new service quality in our organisation is more important than cost reduction	1	2	3	4	5	6	7
TSD03	Employees from different hospital often participate when designing new service.	1	2	3	4	5	6	7
TSD04	The hospital has commitment to review the traditional technique to meet the present standard.	1	2	3	4	5	6	7
TSD05	Newly introduced processes are critically examined prior to its actual implementation.	1	2	3	4	5	6	7
<i>Human Resource Management</i>								
THR01	In our hospital, all the suggestions of employees are evaluated.	1	2	3	4	5	6	7

THR02	In our hospital, we always work in team with the members of various units and departments.	1	2	3	4	5	6	7
THR03	In our hospital, we use teamwork ability as a criterion in selecting employees.	1	2	3	4	5	6	7
THR04	In our hospital, employees' training is provided with quality principles.	1	2	3	4	5	6	7
<i>Quality Assurance</i>								
TQA01	In our hospital, the leadership provides sufficient internal communication facilities for effective planning.	1	2	3	4	5	6	7
TQA02	In our hospital, employees ensure the usage of best planning and learning method for achieving quality.	1	2	3	4	5	6	7
TQA03	Our hospital encourages innovative plan to achieve best practice.	1	2	3	4	5	6	7
TQA04	Our hospital has a collective way of planning.	1	2	3	4	5	6	7
TQA05	Our hospital considers quality planning as a top priority in the regular meeting	1	2	3	4	5	6	7
TQA06	The process of production is designed in a way that it adds value to our products.	1	2	3	4	5	6	7
<i>Information and Analysis</i>								
TIA01	In our hospital, we have programs in place to minimize the period receiving an order and its satisfaction.	1	2	3	4	5	6	7
TIA02	In our hospital, data on performance is collected and analysed on regular basis.	1	2	3	4	5	6	7
TIA03	In our hospital, information enables us to improve and control the core services and processes.	1	2	3	4	5	6	7
TIA04	In our hospital, timely information is received and the important data is communicated and presented to employees on regular basis.	1	2	3	4	5	6	7

**Section C: Competitive Intensity**

Competitive intensity is the fierceness of competition within an industry.

Please indicate your *level of agreement* to each of the following statements that relate to competitive intensity, by **ticking** the appropriate number, on the scale:

*1=least agreement, 2=less agreement, 3=little agreement, 4=moderate agreement, 5=strong agreement, 6=stronger agreement, 7=strongest agreement.*

COM01	Competition in our industry is intense.	1	2	3	4	5	6	7
COM02	In our industry, competitors offer attractive promotion packages to attract more patients.	1	2	3	4	5	6	7
COM03	In our industry, competitors offer lower prices to attract more patients.	1	2	3	4	5	6	7
COM04	Anything that one competitor offers, others can match readily.	1	2	3	4	5	6	7
COM05	In our industry, one hears of a new competitive move almost every day.	1	2	3	4	5	6	7



**Section D: Market Dynamism**

Market dynamism refers to changes in competitor and customer behaviour which happen regularly and are very hard to predict. Please indicate your *level of agreement* to each of the following statements that relate to market dynamism, by **circling** the appropriate number, on the scale:

*1=least agreement, 2=less agreement, 3=little agreement, 4=moderate agreement, 5=strong agreement, 6=stronger agreement, 7=strongest agreement.*

MAR01	In our kind of business, patient preferences change most of the time.	1	2	3	4	5	6	7
MAR02	Often times, our competitors change their services to suit patient needs.	1	2	3	4	5	6	7
MAR03	New patients tend to have service-related needs that are different from those of our existing patients.	1	2	3	4	5	6	7
MAR04	Our patients tend to look for new services all the time.	1	2	3	4	5	6	7

**Section E: Government Regulation**

Government regulation is a law that controls the way that a business can operate. Please indicate your *level of agreement* to each of the following statements that relate to government regulation, by **ticking** the appropriate number, on the scale:

*1=least agreement, 2=less agreement, 3=little agreement, 4=moderate agreement, 5=strong agreement, 6=stronger agreement, 7=strongest agreement.*

GOV01	The government has huge influence on our hospital.	1	2	3	4	5	6	7
GOV02	Senior management spends more time dealing with the government.	1	2	3	4	5	6	7
GOV03	Administrative guidelines laid-down by government that can constrain our hospital operations are substantial.	1	2	3	4	5	6	7
GOV04	Administrative procedures governing our hospital operations are substantial.	1	2	3	4	5	6	7

## APPENDIX B

## QUESTIONNAIRE FOR FRONTLINE EMPLOYEES

**Total Quality Management and Patient Satisfaction in Ghana: Role of Internal Marketing and Contextual Factors**

Dear Respondent,

My name is Isaac Tweneboah-Koduah, a PhD Student at the Department of Marketing and Supply Chain Management, School of Business, University of Cape Coast. This study forms part of the requirement for the award of my PhD Degree in Business Administration and it seeks to assess *the influence of total quality management on patient satisfaction: Exploring the mediating role of internal marketing and the moderating role of contextual factors.*

I am writing to ask for your help with my research. I would be grateful if you could spare about 20 minutes of your time to answer these questions for the research, with all honesty. There is no right or wrong answer. Your questionnaire is strictly anonymous and will only be read and used by myself. Participation is voluntary. In the event that anything is published from this research, no information supplied will be identifiable to you since only aggregated data will be reported in this study.

It is expected that the findings of this research will have implications for improvement in healthcare through policy formulation and management support in this hospital. I would be very grateful if I could get the completed questionnaire within a week. If you need any clarification on this questionnaire, its nature or its purpose, or you wish to be informed on the results of the study, do not hesitate to contact me on 050-601-6060 or email: [isaac.tweneboah-koduah@stu.ucc.edu.gh](mailto:isaac.tweneboah-koduah@stu.ucc.edu.gh). Thank you for your valuable time and input.

**Questionnaire Sections****Section A: Background Information**

BIF1. Sex: a. Male [ ] b. Female [ ]

BIF2. Age in years: \_\_\_\_\_

BIF3. Job Schedule: \_\_\_\_\_

BIF4. Teaching Hospital: \_\_\_\_\_

**Section B: Internal Marketing**

Internal marketing is marketing concept that regards employees, especially those engaged in customer contacts, as internal customers, and aim to motivate them to behave in a service oriented manner towards satisfying existing clients. Please indicate your *level of agreement* to each of the following statements that relate to internal marketing, by **circling** the appropriate number, on the scale:

*1=least agreement, 2=less agreement, 3=little agreement, 4=moderate agreement, 5=strong agreement, 6=stronger agreement, 7=strongest agreement.*

<i>Welfare Systems</i>								
IWS01	This hospital offers good employee benefits.	1	2	3	4	5	6	7
IWS02	This hospital offers good vacation system.	1	2	3	4	5	6	7
IWS03	This hospital offers good facility.	1	2	3	4	5	6	7
IWS04	This hospital offers good system to take a leave of absence.	1	2	3	4	5	6	7

<i>Training</i>								
ITN01	Service training is regularly provided in this hospital.	1	2	3	4	5	6	7
ITN02	There are enough training programmes offered in this hospital.	1	2	3	4	5	6	7
ITN03	In this hospital, training session is linked to patients' needs.	1	2	3	4	5	6	7

<i>Compensation</i>								
ICP01	In this hospital, employee performance is fairly rewarded.	1	2	3	4	5	6	7
ICP02	Employees who develop a close relationship with patients are rewarded.	1	2	3	4	5	6	7
ICP03	In this hospital, employees' pay is linked to performance.	1	2	3	4	5	6	7

<i>Communication</i>								
ICM01	In this hospital, the exchange of information is adequate.	1	2	3	4	5	6	7
ICM02	In this hospital, I can express my opinion freely in a liberal atmosphere.	1	2	3	4	5	6	7
ICM03	I am given adequate information on the requirements of my job.	1	2	3	4	5	6	7

<i>Management Support</i>								
IMS01	In this hospital, management encourages open communication.	1	2	3	4	5	6	7
IMS02	There is two-way information flow across management levels.	1	2	3	4	5	6	7
IMS03	In this hospital, management offers guidance in solving problems.	1	2	3	4	5	6	7

## APPENDIX C

## QUESTIONNAIRE FOR PATIENTS

**Total Quality Management and Patient Satisfaction in Ghana: Role of Internal Marketing and Contextual Factors**

Dear Respondent,

My name is Isaac Tweneboah-Koduah, a PhD Student at the Department of Marketing and Supply Chain Management, School of Business, University of Cape Coast. This study forms part of the requirement for the award of my PhD Degree in Business Administration and it seeks to assess *the influence of total quality management on patient satisfaction: Exploring the mediating role of internal marketing and the moderating role of contextual factors.*

I am writing to ask for your help with my research. I would be grateful if you could spare about 5 minutes of your time to answer these questions for the research, with all honesty. There is no right or wrong answer. Your questionnaire is strictly anonymous and will only be read and used by myself. Participation is voluntary. In the event that anything is published from this research, no information supplied will be identifiable to you since only aggregated data will be reported in this study.

It is expected that the findings of this research will have implications for improvement in healthcare through policy formulation and management support in this hospital. I would be very grateful if I could get the completed questionnaire within a week. If you need any clarification on this questionnaire, its nature or its purpose, or you wish to be informed on the results of the study, do not hesitate to contact me on 050-601-6060 or email:

[isaac.tweneboah-koduah@stu.ucc.edu.gh](mailto:isaac.tweneboah-koduah@stu.ucc.edu.gh). Thank you for your valuable time and input.

## Questionnaire Sections

### Section A: Background Information

BIP1. Sex: a. Male [ ] b. Female [ ]

BIP2. Age in years: \_\_\_\_\_

### Section B: Patient Satisfaction

Patient satisfaction means feeling happy from the patient perspective, resulting from comparing perception of service performance in relation to expectations.

Please indicate your *level of agreement* to each of the following statements that relate to patient satisfaction, by **circling** the appropriate number, on the scale:

*1=least agreement, 2=less agreement, 3=little agreement, 4=moderate agreement, 5=strong agreement, 6=stronger agreement, 7=strongest agreement.*

PSA01	I am satisfied with the results of my recovery in this hospital.	1	2	3	4	5	6	7
PSA02	The quality of service received in this hospital meets my expectation.	1	2	3	4	5	6	7
PSA03	I have not regrets for selecting this hospital to receive healthcare.	1	2	3	4	5	6	7
PSA04	I am happy with the healthcare service received so far.	1	2	3	4	5	6	7

## APPENDIX D

## Ethical Clearance

## UNIVERSITY OF CAPE COAST

## INSTITUTIONAL REVIEW BOARD SECRETARIAT

TEL: 0558093143 / 0508878309

E-MAIL: [irb@ucc.edu.gh](mailto:irb@ucc.edu.gh)

OUR REF: UCC/IRB/A/2016/1282

YOUR REF:

OMB NO: 0990-0279

IORG #: IORG0009096

18<sup>TH</sup> MARCH, 2022

Mr. Isaac Tweneboah-Koduah  
Department of Marketing and Supply Chain Management  
University of Cape Coast

Dear Mr. Tweneboah-Koduah,

**ETHICAL CLEARANCE – ID (UCCIRB/CHLS/2021/50)**

The University of Cape Coast Institutional Review Board (UCCIRB) has granted Provisional Approval for the implementation of your research **Total Quality Management and Patient satisfaction in Ghana: Role of Internal Marketing and Contextual Factors**. This approval is valid from 18<sup>th</sup> March, 2022 to 17<sup>th</sup> March, 2023. You may apply for a renewal subject to submission of all the required documents that will be prescribed by the UCCIRB.

Please note that any modification to the project must be submitted to the UCCIRB for review and approval before its implementation. You are required to submit periodic review of the protocol to the Board and a final full review to the UCCIRB on completion of the research. The UCCIRB may observe or cause to be observed procedures and records of the research during and after implementation.

You are also required to report all serious adverse events related to this study to the UCCIRB within seven days verbally and fourteen days in writing.

Always quote the protocol identification number in all future correspondence with us in relation to this protocol.

Yours faithfully,

A handwritten signature in blue ink, appearing to read 'S. Asiedu Owusu'.

Samuel Asiedu Owusu, PhD  
UCCIRB Administrator

ADMINISTRATOR  
INSTITUTIONAL REVIEW BOARD  
UNIVERSITY OF CAPE COAST

School of Business

Department of Marketing and Supply Chain Management

6<sup>th</sup> August, 2021

The Chair

Institutional Review Board

University of Cape Coast

Dear Sir/Madam,

**APPLICATION FOR ETHICAL CLEARANCE OF THESIS PROPOSAL**

I am a second-year student, pursuing a Doctor of Philosophy in Business Administration at the University of Cape Coast, with index number **SB/BUA/19/0011**.

I will therefore be grateful if I am given Institutional Review Board (IRB) approval of my thesis. The title of the thesis is '**TOTAL QUALITY MANAGEMENT AND PATIENT SATISFACTION IN GHANA: ROLE OF INTERNAL MARKETING AND CONTEXTUAL FACTORS**'.

Attached is the proposal and cover letters from the School of Business and my Principal Supervisor. The curriculum vitae of my Principal Supervisor have also been attached.

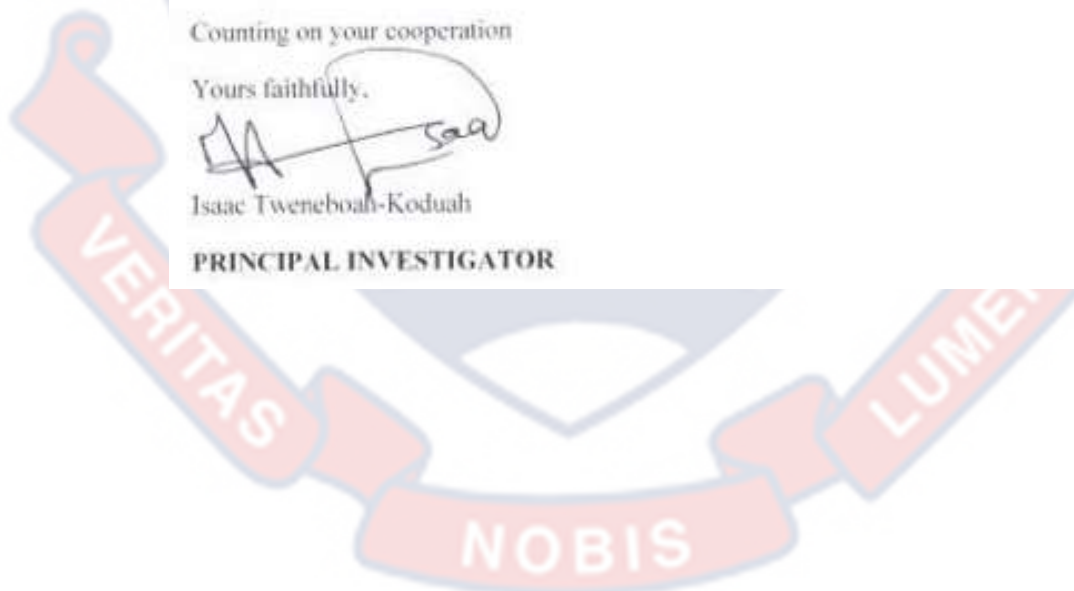
Counting on your cooperation

Yours faithfully,



Isaac Tweneboah-Koduah

**PRINCIPAL INVESTIGATOR**





UNIVERSITY OF CAPE COAST  
COLLEGE OF HUMANITIES AND LEGAL STUDIES  
SCHOOL OF BUSINESS

**DEPARTMENT OF MARKETING AND SUPPLY CHAIN MANAGEMENT**

Telephone: +233(0)3321 324064 / 32483  
Direct: 03321-91110  
Telex: 2552, UCC, GH  
Telegrams & Cables: University, Cape Coast



UNIVERSITY POST OFFICE  
CAPE COAST, GHANA

Our Ref:

Your Ref:

12<sup>th</sup> August, 2021

The Chair  
Institutional Review Board  
University of Cape Coast

Dear Sir/Madam,

**APPLICATION FOR ETHICAL CLEARANCE**

The bearer of this letter, Mr Isaac Tweneboah-Koduah, is a PhD student of the above-named department. I support his application for ethical clearance from your outfit.

He is conducting research on the topic: **Total Quality Management and Patient Satisfaction in Ghana: Role of Internal Marketing and Contextual Factors**", as part of the requirements for obtaining a Doctor of Philosophy degree in Business Administration at the University of Cape Coast.

I shall be grateful if he is given the necessary assistance to enable him commence data collection.

Thank you.

Yours faithfully,

Dr. (Mrs) Gloria K.Q. Agyapong  
PRINCIPAL SUPERVISOR

NOBIS

UNIVERSITY OF CAPE COAST  
COLLEGE OF HUMANITIES AND LEGAL STUDIES  
SCHOOL OF BUSINESS

**DEPARTMENT OF MARKETING AND SUPPLY CHAIN MANAGEMENT**

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Telegrams & Cables: University, Cape Coast



UNIVERSITY POST OFFICE  
CAPE COAST, GHANA

Our Ref:  
Your Ref:

12<sup>th</sup> August, 2021

The Chair  
Institutional Review Board  
University of Cape Coast

Dear Sir/Madam,

**APPLICATION FOR ETHICAL CLEARANCE**

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He is conducting research on the topic: **Total Quality Management and Patient Satisfaction in Ghana: Role of Internal Marketing and Contextual Factors**", as part of the requirements for obtaining a Doctor of Philosophy degree in Business Administration at the University of Cape Coast.

I shall be grateful if he is given the necessary assistance to enable him commences data collection.

Thank you.

Yours faithfully,

Dr. (Mrs) Gloria K.Q. Agyapong  
**HEAD**

In case of reply the number  
And the date of this  
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My Ref. No. KBTH/MD/C/3/22  
Your Ref. No. ....



KORLE BU TEACHING HOSPITAL  
P. O. BOX KB 77,  
KORLE BU, ACCRA.

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Fax: +233 302 667759  
Email: Info@kbth.gov.gh  
pr@kbth.gov.gh  
Website: www.kbth.gov.gh

28<sup>th</sup> July, 2022

ISAAC TWENEBOAH-KODUAH  
DEPT OF MARKETING AND SUPPLY CHAIN MANAGEMENT  
SCHOOL OF BUSINESS, UNIVERSITY OF CAPE COAST

**TOTAL QUALITY MANAGEMENT AND PATIENT SATISFACTION IN GHANA:  
ROLE OF INTERNAL MARKETING AND CONTEXTUAL FACTORS**

**KBTH-IRB /00096/2022**

Investigator: ISAAC TWENEBOAH-KODUAH

The Korle Bu Teaching Hospital Institutional Review Board (KBTH IRB) reviewed and granted approval to the study entitled: **"Total Quality Management and Patient Satisfaction in Ghana: Role of Internal Marketing and Contextual Factors"**

Please note that the Board requires you to submit a final review report on completion of this study to the KBTH-IRB.

Kindly, note that, any modification/amendment to the approved study protocol without approval from KBTH-IRB renders this certificate invalid.

Please report all serious adverse events related to this study to KBTH-IRB within seven days verbally and fourteen days in writing.

This IRB approval is valid till 30<sup>th</sup> June, 2023. You are to submit annual report for continuing review.

Sincere regards,

DR. DANIEL ANKRAH  
VICE CHAIR (KBTH-IRB)  
FOR: CHAIR (KBTH-IRB)

Cc: The Chief Executive Officer, KBTH  
The Director of Medical Affairs, KBTH

# KOMFO ANOKYE TEACHING HOSPITAL



P. O. Box 1934  
Kumasi - Ghana  
Tel: +233 - 3200-22301 - 4  
Fax: +233 - 3220-24654 / 24621  
Website: [www.kathsp.org](http://www.kathsp.org)

Our Ref. **KATH IRB/AP/060/22**...

Your Ref... No:.....

## Komfo Anokye Teaching Hospital Institutional Review Board

14th July 2022

Mr. Isaac Tweneboah-Koduah  
Marketing & Supply Chain Management Department  
University of Cape Coast  
Cape Coast

Dear Mr. Tweneboah-Koduah,

### Ethics Approval

**Protocol title:** Total Quality Management and Patient Satisfaction in Ghana: Role of Internal Marketing and Contextual Factors

**Study site:**

- Komfo Anokye Teaching Hospital, Kumasi
- Tamale Teaching Hospital, Tamale
- Korle Bu Teaching Hospital, Accra
- Cape Coast Teaching Hospital, Cape Coast
- Ho Teaching Hospital, Ho

**Sponsor:** Self-funded

We write in response to your correspondence of 16th June 2022 requesting the Komfo Anokye Teaching Hospital Institutional Review Board (KATH IRB) to review the research study referenced above.

The proposed research study went through the Board review of 5th July 2022 and we are pleased to inform you that KATH IRB has given approval for the following study documents:

- *Protocol-version 1.0 last updated 16 June 2022*
- *Informed consent form (healthcare employees) version 1.0 last updated 16 June 2022*
- *Informed consent form (frontline employees) version 1.0 last updated 16 June 2022*
- *Informed consent form (patients) version 1.0 last updated 16 June 2022*
- *Case report form (employees) version 1.0 last updated 16 June 2022*
- *Case report form (frontline employees) version 1.0 last updated 16 June 2022*
- *Case report form (patients) version 1.0 last updated 16 June 2022*

Approval for the study is in effect until **13th July 2023** and it is the responsibility of the Principal Investigator to maintain the study in good standing at the Komfo Anokye Teaching Hospital. The Board anticipates to be notified of the actual start date of your project.

A Centre of Excellence  
Page 1 of 2

In case of reply the number

And the date of this

Letter should be quoted

*My Ref. No. HTH/RPPME/*

*Your Ref. No....*

Our Core Values:

- Commitment
- Accountability
- Dedication
- Integrity
- Professionalism
- Innovation
- Teamwork
- Safe Care



HO TEACHING HOSPITAL

P O BOX MA-374

HO

GPS ADDRESS: VH-0080-7239

Tel: +233-(036) 2027318-20/2028207

Fax: +233-(036) 2027323

Website: [www.hth.gov.gh](http://www.hth.gov.gh)

Email: [info@hth.gov.gh](mailto:info@hth.gov.gh)

[hvolta@yahoo.com](mailto:hvolta@yahoo.com)

14<sup>th</sup> April 2022

TO WHOM IT MAY CONCERN

**LETTER OF INTRODUCTION**

I hereby introduce to you the bearer of this letter, **Isaac Tweneboah-Koduah**, a PhD Student of the University of Cape Coast. He is carrying out a study titled: **“Total Quality Management and Patient Satisfaction in Ghana: Role of Internal Marketing and Contextual Factors.”**

This study has been approved by the Management of the Hospital after Ethical approval was received from the University of Cape Coast INSTITUTIONAL REVIEW BOARD with Protocol Identification number **UCCIRB/CHLS/2021/50**. The Ethical approval is valid till 17<sup>th</sup> March 2023.

Please accord him all the necessary assistance as this study will help improve upon the total quality management on patient satisfaction and highlight the relevance of the adoption of quality improvement approaches to healthcare organisations and also improve upon the quality of care in Ho Teaching Hospital and contribute to knowledge and practice of healthcare in general. In addition, inspect his student identification card for validation.

Also, ensure patients' names and identification numbers are anonymized by the student. This is to protect the confidentiality and privacy of the patients. If in doubt, kindly contact the Research Department; Room N32 on the administration block, or Telephone 0244853947. Also, kindly report any misconduct of the Principal Investigator to the Research Department for necessary actions, please.

Thank You.

**[Simon Dzokoto]**  
Deputy Director, RPPME