



ENHANCING ISO (PDCA) WITH A SUPPLY CHAIN OPERATIONS REFERENCE (SCOR) MODEL FOR QUALITY PROPERTY MANAGEMENT SERVICES

Prof. Shirley M. C. YEUNG

MA, PGDE, DBA; Prof. of Practice & Head of Business, Gratia Christian College, HKSAR.
Keynote Speaker, 24th Int. Conf. on ISO & TQM (24-ICIT)

Prof. Samuel K. M. HO

Research Professor & Founder-Chair, 24-ICIT at GCC (www.hk5sa.com/icit)
BSc(Engg.), MSc, PhD, Ex-Prof. & Speaker, Oxford U.; Ex-Research Fellow, Cambridge U.

Wilson K. F. CHAN

Lecturer-GCC, BBA, MSc (Real Estate), CIH Chartered Member, M.H.K.I.H., PFM,
HKMAAL (Accredited Mediator), AHKIArb, CFM(R), Certified Property Manager (PRC)

ABSTRACT

*As supply chains focus on creating value and reducing waste, the authors intend to create and link a Supply Chain Operations Reference (SCOR) Model with related ISO standards in property management to increase values to stakeholders and reduce resources for sustainability. The SCOR Model is a widely accepted framework for managing and optimizing supply chain operations. It provides a structured approach to analyzing and improving values performance in **green management, customer communication, staff motivation** across five key processes: Plan, Source, Make, Deliver, and Return. In this article, we will apply the SCOR Model to the property management services industry in Hong Kong after COVID-19, highlighting the challenges and opportunities that arise from the pandemic.*

Keywords: ISO (PDCA), SCOR Model, Quality Property Management, Values Performance

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1. INTRODUCTION

This paper aims to investigate the key elements of values performance in property management service sector with reference to the requirements of ISO (Plan, Do, Check, Act) and the SCOR models. Traditionally, the Supply Chain Operations Reference model (SCOR) has been adopted in supply chain related industries. This model may also be applied to the property management service management sector to link processes and create values in performance via the values in “plan, source, make, deliver and return” processes of the SCOR model.

In response to increasing regional and international competition after COVID-19 with challenges in dropping tenancy rate and rising demands in technology in property management related services, for example AI and NFT, property management organizations have begun to source committed green partners with green products and services to enhance their competitiveness by adopting green procurement procedures and compliance, for example, ISO, Sustainable Development Goals (SDGs) and ESG. The objectives of this paper are therefore to:

- 1) Outline the key elements of ISO 9001: 2008 and the SCOR model; and
- 2) Examine the differences between ISO 9001: 2008 and the SCOR model for creating value performance; and
- 3) Research Question: Identification of the key elements in values performance

Quality management in the urban property sector involves systematic processes aimed at ensuring the best possible outcomes for property services and client satisfaction. The importance of quality in property management is underscored by its impact on the overall performance, value appreciation, and sustainability of properties (Pérez-Luño et al., 2022). In Hong Kong, where space is a premium and living conditions can be challenging, the demand for high-quality property management services has surged.

One of the leading frameworks guiding quality management in property services is the Total Quality Management (TQM) approach, which emphasizes continuous improvement, stakeholder satisfaction, and a strong organizational culture (Lee & Kim, 2021). TQM practices incorporate feedback mechanisms from tenants to enhance service delivery. Urban property management firms such as UPMG (<https://www.urban.com.hk/eng/awards/01.htm>) have integrated these principles to ensure that service quality meets or exceeds client expectations.

Additionally, certifications such as ISO 9001 are increasingly adopted in Hong Kong’s property management sector, serving as benchmarks for quality assurance. Engaging in certified quality management processes not only enhances operational efficiency but also builds trust with clients and stakeholders (Tam et al., 2021). As a result, UPMG's commitment to such quality standards reflects its focus on precise operational benchmarks while enhancing customer satisfaction.

2. LITERATURE REVIEW

Stewart (1997) identifies that managing supply-chain operations is critical to any company's ability to compete effectively. The supply chain has traditionally been managed as a series of simple, compartmentalized business functions. It was driven by manufacturers who managed and controlled the pace at which products were developed, manufactured and distributed. In recent years, however, customers have forced increasing demands on manufacturers for options/styles/features, quick order fulfilment and fast delivery. With the long-time competitive differentiator of manufacturing quality approaching parity across the board, meeting these customer demands has emerged as the next critical opportunity for competitive advantage. Maintaining competitive advantage likewise forces constant redirection and enhancement of product features, quality, cost, options and services. Supply-chain effectiveness has therefore joined product quality and time-to-market as a key competitive differentiator.

Success for many companies now depends on their ability to balance a stream of product and process changes with meeting customer demands for delivery and flexibility. Optimally managing supply-chain operations has therefore become critical to companies' ability to compete effectively in the global marketplace.

Thilakarathna et.al (2015) find out that globally significance of SCOR for benchmarking, performance measuring and business process re-engineering had been recognized long time back. In previous literature there are many instances where SCOR model had been useful in facing challenges such as constantly decreasing product life cycle and pressure to reduce time to market. In defining the scope of the study basically two dimensions of SCOR were considered: processes and performance attributes adapted from SCOR. A thorough systematic review of existing literature specifically focusing on the application of SCOR model for the apparel industry is being conducted. This study is based on the theoretical gap in the application of SCOR model in relation to apparel industry. Application aspect of SCOR model for improved performance of the apparel supply chain will be presented along further recommendations for apparel industry for improved competitiveness. This study could be used as a guidance to determine the applicability of SCOR model to other industries as well considering the characteristics of the specific industry.

Shekarian & Majava (2022) discover that there are a lot of studies exploring various aspects of supply chain practices. However, there remains a gap for the proposal of a complete framework concerning various industries. This research fills this gap by studying existing empirical and review studies. Based on a content analysis of 86 studies, 789 practices are derived and categorized, leading to a comprehensive classification of sustainable practices in supply chains. Moreover, the employed methods to analyze the data are investigated. The practices are cross-checked versus the studied industries showing the current sustainable industries. The details of the studied papers are presented in a comprehensive table. The sustainable framework showing the industrial solutions toward sustainable supply chains is divided into 38 minor practices classified into 11 main categories. This paper provides a novel interpretation of the sustainable solutions addressed by different industries and presents a new and updated classification of the literature identifying future directions. This offers many advantages for practitioners and researchers to transform a supply chain into an improved version in the bigger picture.

Millstein (2020) suggests two useful formulae for the SCOR as follow:

- Return on supply chain fixed assets (RSCFA) = (Supply chain revenue – Cost of goods sold – Supply chain management costs) / Fixed Assets
- Return on working capital (RWC) = (Supply chain revenue – Cost of goods sold – Supply chain management costs) / (Inventory + Accounts receivable – Accounts payable)

He further recommends a monthly review of your SCOR measures, creating action items to improve where there are performance gaps.

Integrating ISO, PDCA, and SCOR (Supply Chain Operations Reference) in property management can enhance operational efficiency, quality control, and service delivery. Here's how these frameworks can work together in this context:

2.1. ISO in Property Management

ISO Standards: Implementing relevant ISO standards, such as ISO 9001 for quality management and ISO 14001 for environmental management, can help property management firms establish best practices.

Benefits:

Quality Assurance: Ensures consistent service delivery and enhances tenant satisfaction.

Regulatory Compliance: Helps in meeting legal and environmental regulations.

Sustainability: Promotes environmentally friendly practices in property management.

2.2. PDCA Cycle in Property Management

Plan: Identify key objectives, such as improving tenant satisfaction or reducing maintenance response times. Develop strategies to achieve these goals.

Do: Implement the planned strategies on a small scale. For example, introduce a new tenant feedback system.

Check: Monitor the results by gathering data on tenant satisfaction and maintenance performance. Analyze whether the strategies met the objectives.

Act: Based on the evaluation, refine the strategies and scale up successful initiatives across the property portfolio.

2.3. SCOR Model in Property Management

The SCOR Model provides a framework for analyzing and improving supply chain processes. In property management, it can be adapted to streamline operations and enhance service delivery. The **components** of SCOR are:

Plan: Develop a comprehensive strategy for property maintenance, tenant services, and resource allocation.

Source: Identify and manage suppliers, such as maintenance contractors and service providers.

Make: Execute property management activities, including maintenance, renovations, and tenant on boarding.

Deliver: Ensure timely and efficient service delivery to tenants.

Return: Handle tenant complaints and service issues effectively, using feedback for continuous improvement.

2.4 Integration of ISO, PDCA, and SCOR

Quality Management: Use ISO standards to establish a quality management system that aligns with SCOR processes.

Continuous Improvement: Apply the PDCA cycle to continuously assess and refine property management processes, ensuring they meet ISO standards and SCOR practices.

Operational Efficiency: Leverage SCOR to optimize the supply chain in property management, from sourcing maintenance services to delivering tenant services.

Feedback Loop: Use tenant feedback collected in the PDCA cycle to inform SCOR planning and execution, ensuring that property management practices evolve based on actual performance and tenant needs.

By combining ISO standards, the PDCA cycle, and the SCOR model, property management organizations can create a robust framework for continuous improvement, quality assurance, and operational efficiency. This integrated approach not only enhances tenant satisfaction but also supports sustainable business practices in property management.

3. PRINCIPLES & DEVELOPMENT OF ISO AND SCOR MODEL

The eight principles of ISO for Quality Property Management are: Leadership, Involvement of People, Factual Approach, Process Approach, System Approach, Continual Improvement, Mutual Benefit Supplier Relationship and Customer Satisfaction. These principles focus on system conformity, continuous improvement and customer satisfaction.

Gunasekaran and Tirtiroglu (2001) indicate that supply chain management (SCM) is a key strategic factor for increasing organizational effectiveness and for better realizing organizational goals such as enhanced competitiveness, improved customer service and increased profitability. The era of both globalization of markets and outsourcing has begun, and many companies use supply chain and logistics companies to manage their operations. Gunasekaran and Tirtiroglu (2001) propose the following criteria for evaluating partners:

- Level and degree of information sharing;
- Buyer-vendor cost saving initiatives;
- Extent of mutual co-operation leading to improved quality;
- The stage at which the supplier is involved; and
- Extent of mutual assistance in problem solving efforts.

When outlining a framework for measuring the performance of a supply chain, the researchers focus on aligning customer satisfaction with operational levels of management. The present research explores the application of the SCOR model to educational strategic partnerships and so the following strategic measurements from Gunasekaran and Tirtiroglu (2001) were considered:

- Total cash flow time (financial);
- Net profit against productivity ratio (financial);
- Rate of return on investment (financial);
- Variations against budget (financial);
- Level of customer perceived value of product (non-financial);
- Range of product and services (non-financial);
- Order lead time (non-financial);
- Total supply chain cycle time (non-financial);
- Flexibility of service system to meet particular customer needs (non-financial);
- Level of supplier's defect-free deliveries (non-financial);
- Buyer-supplier partnership level (financial and non-financial);
- Customer query time (financial and non-financial); and
- Delivery performance (financial and non-financial).

The application of the SCOR model and the use of ISO standards to strategic partnerships can help increase value and reduce waste, leading to higher productivity, better human relationships and a higher chance of success. Strategic partnership relies heavily on the leadership and vision of an institute.

According to Stavroulaki and Davis (2010), alignment of products and processes can be achieved by focusing on the following:

- The interface between products and production processes;
- The interface between products and supply chains; and
- Descriptions of supply chain processes.

However, they claimed that a broader supply chain framework is still needed to support corporate strategy via the alignment of resources to respond to the demands of market. They pointed out that the SCOR model did not concentrate on how these processes relate to supply chain strategy or to a product's characteristics.

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As the rationale for supply chain management can be applied to different kinds of industries, including the education sector – purchasing relevant materials and resources for curriculum production and programme delivery– educators should try to be flexible and open in developing a mindset with customer-, employee-, and society-orientations in a cross-functional context when identifying and measuring the performance of strategic partners.

Lockamy and McCormick (2004) say that the “Supply Chain Operations Reference” (SCOR) model developed by the Supply Chain Council provides a framework for characterizing supply chain management practices and processes that result in best-in-class performance. Their findings show that planning processes are important in all SCOR supply chain planning decision areas. “Collaboration” with “Teaming” support was found to be the most important in the “Plan, Source, Make” planning decision areas. “Process Measures, Process Credibility, Process Integration, and Information Technology” were found to be most critical in supporting the “Deliver” planning decision area. Though there are five processes (“Plan, Source, Make, Delivery and Return”) in the SCOR Version 5.0 Model, this paper focuses on “Plan, Source, Make and Deliver”. The four levels of the four processes are listed below:

- Level-1:** Defining the scope and content of the core management processes for the above- mentioned decision areas;
- Level-2:** Describing the characteristics associated with the following process types deployed within the core processes: planning, execution and enable;
- Level-3:** Providing detailed process element information for each Level 2 process category. Inputs, outputs, description and the basic flow of process elements are captured at this level of the SCOR model; and
- Level-4:** Implementing specific supply chain management practices at this level to achieve a competitive advantage and to adapt to changing business conditions.

The literature (1999-2004) cited by Lockamy and McCormick (2004) reveals the importance of a few supply chain activities, including partnership planning activities for promoting collaboration between supply chain partners, integrating cross-functional activities, coordinating supply chain processes, setting supply chain goals, developing strategic alliances, establishing information-sharing parameters, reviewing sourcing and outsourcing options, and defining supply chain power relationships between trading partners. Lockamy et al. (2000) identify 3M Company as the first company to make use of SCM to achieve its company-wide goals of increasing customer satisfaction and loyalty, doubling the speed of key business processes and reducing inventories and costs. Learning from 3M's experience, we can see that the following elements are critical to success for SCM organizations:

- (a) Identification of tangible benefits;
- (b) Creation of clear vision;
- (c) Establishment and communication of company-wide supply chain goals;
- (d) Development of a definition of supply chain with goals for improving supply chain operations;
- (e) Development of a process of implementing SCM; and
- (f) Development of measures to assess progress toward achieving business-unit and company-wide goals.

Theeranuphattana and Tang (2008) say that the SCOR model advocates hundreds of performance metrics which are used in conjunction with five performance attributes: reliability, responsiveness, flexibility, cost and asset metrics. According to the Supply Chain Council (2006), the five attributes of SC performance are:

- (1) SC Reliability
The performance of the SC in delivering the correct product, to the correct place, at the correct time, in the correct condition and packaging, in the correct quantity, with the correct documentation, to the correct customer.
- (2) SC Responsiveness
The speed at which the SC provides products to its customers.
- (3) SC Flexibility
The agility of the SC in responding to marketplace changes to gain or maintain competitive advantage.
- (4) SC Costs
The costs associated with operating the SC.
- (5) SC Asset Management

The effectiveness of an organization in managing assets to support demand satisfaction. This includes the management of all assets (fixed and working capital).

From the above, it can be seen that the ISO and the SCOR models share the same management rationale: having a vision, mission and goals in planning, obtaining the involvement of team members and establishing communication channels and process measurement in sourcing and making; and understanding benefits (products, services, programmes) to stakeholders. Therefore, the four levels of “Plan, Source, Make, Deliver” in the SCOR model can be applied to identifying strategic partners, in building collaboration and in measuring the performance of strategic partners. **The purpose of this paper is to apply these four levels to the key elements of strategic partnerships in order to construct a holistic picture of collaboration between strategic partners for values performance.**

4. ESG PERFORMANCE: A GROWING IMPERATIVE

The growing awareness surrounding sustainability has made ESG performance a critical consideration in property management. In Hong Kong, the government has embarked on initiatives promoting sustainability, such as the Hong Kong Climate Action Plan, which outlines various strategies aimed at reducing greenhouse gas emissions and enhancing environmental sustainability (Hong Kong Government, 2021). These mandates have prompted property management firms to incorporate ESG frameworks into their operational strategies.

Environmental performance, a key component of ESG, encompasses energy efficiency, waste management, and the minimization of carbon footprints. Urban property management firms, including UPMG, have adopted practices such as using energy-efficient appliances and technologies, implementing waste recycling programs, and enhancing green spaces within urban developments (Lam & Wong, 2023). Studies show that properties with strong environmental performance not only align with regulatory standards but also attract environmentally conscious tenants, thereby enhancing economic returns (Ng et al., 2022).

4.1. Social and Governance Dimensions

The social and governance aspects of ESG performance are intrinsically linked to community engagement and ethical business practices. Property management firms in Hong Kong are increasingly recognizing the importance of fostering positive relationships with their communities. This involves creating inclusive living environments that cater to diverse populations, ensuring tenant engagement, and addressing social issues such as affordable housing.

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Governance also plays a vital role in property management. Transparent operations, compliance with regulatory frameworks, and effective risk management are central to sustaining trust among stakeholders (Cheung et al., 2021). For UPMG, this entails not only adhering to local property laws and regulations but also promoting ethical practices such as data privacy and tenant rights.

4.2. Trends - Real Estate Services Management (RESM) in Quality Management (QM), Sustainable Development Goals (SDGs) and Environmental, Social, and Governance (ESG)

4.2.1. QM in RESM

QM in RESM is becoming increasingly important in the post-COVID-19 era. The integration of ISO (PDCA) and SCOR models provides a powerful framework for improving service quality. Real estate companies are now focusing on continuous improvement and customer satisfaction through the adoption of advanced technologies such as Artificial Intelligence and the Internet of Things for predictive maintenance and smart building management. These technologies enable real-time monitoring and data analysis to ensure properties maintain optimal standards and reduce operating costs, thereby increasing owner and tenant satisfaction and retention.

4.2.2. SDG in RESM

The real estate industry is aligning its strategies with the United Nations Sustainable Development Goals (SDGs) to promote sustainability and resilience. Key focus areas include sustainable building practices, energy efficiency and waste reduction. By sourcing environmentally friendly materials and implementing green building standards, real estate companies are reducing their environmental footprint. Additionally, the adoption of renewable energy and smart grid technologies can help create more sustainable and energy-efficient buildings, contributing to SDG 7 (Affordable and Clean Energy) and SDG 11 (Sustainable Cities and Communities).

4.2.3. ESG in RESM

ESG considerations are becoming a core part of RESM. Companies are increasingly being evaluated based on their environmental impact, social responsibility and governance practices. This shift is driven by growing stakeholder demands for transparency and accountability. Real estate companies are implementing ESG frameworks to assess and improve their performance in areas such as carbon emissions, community engagement and ethical governance. By integrating ESG principles, companies can not only enhance their reputation but also attract socially conscious investors and tenants, thereby driving long-term value creation.

5. RESEARCH METHODOLOGY: CONTENT ANALYSIS

Business communication refers to the sending of verbal and non-verbal messages in order to co-ordinate, integrate, control and persuade people to accept ideas. Organizational behaviour means understanding, predicting and controlling others' behaviour. Management refers to managing resources within an organization for achieving organizational goals. These three fields – business communication, organizational behaviour and business management – concern themselves with attitudes, perceptions, trends and practices.

Content analysis is a methodological approach that can help uncover key messages in textual information. Texts can be both verbal and non-verbal, and can include the behaviour of people and organizational patterns; anything, in fact, which can be quantified and interpreted by a researcher. Content analysis can be regarded as a tool for understanding people's thinking and beliefs, to uncover the methods of persuading people to accept ideas, to differentiate practices among certain groups of people and to see the trend of certain practices. Textual messages are the data that content analysis works with and from which concepts for further analysis are derived.

“Content analysis as a methodology is often used in conjunction with other methods, in particular historical and ethnographical research. It can be used in any context in which the researcher desires a means of systematizing and quantifying data. It is extremely valuable in analyzing observation and interview data.”

(Fraenkel & Wallen, 2003)

Content analysis is a systematic and objective analysis of selected text characteristics. It involves counting the number of words and the frequency of different types of words; finding out the characteristics of themes, building relationships among items, paragraphs, and finally establishing meaningful concepts. It is not simply a quantitative research method but also a qualitative one since the purpose of the writing is also understood through doing the analysis.

In the present research, I uncover the key elements of strategic partnership in higher education from reading the relevant literature and by conducting interviews. When undertaking content analysis, researchers need to be aware of the sampling pattern and the levels of units. These should be classified systematically for analysis, comparison, and for finding out the meaning of the textual information. Selecting representative samples of textual messages is also important. The documents used for the content analysis can be ISO requirements, literature on strategic partnerships and interview transcripts. The researcher reviewed all the related data in order to derive a theory. Last of all, I used the literature to derive a structure or framework that integrates the research data. The structure is a product of the content analysis.

There are two levels of content analysis: describing fundamental, inherent characteristics of messages and applying characteristics to related areas that is not the focus of this study. The former is more objective, since collected data are 'facts', while the latter is more subjective as it is derived from the researcher's point of view and life experience. When undertaking content analysis for the present research, there were three research objectives: 1) outline the key elements of ISO and the SCOR model; 2) examine the differences between ISO and the SCOR model for managing the performance of strategic partners; and 3) identify the key elements of effective strategic partnerships. Finding out conflicting or complementary ideas from texts makes research more comprehensive. The advantages of content analysis are:

- No people are involved;
- No experiments are required; and
- Texts from the recent past can reflect social phenomena.

However, content analysis also has limitations. There may be issues relating to the availability of texts and the interpretations may be subjective. In order to guard against undue subjectivity, researchers should follow the advice of Babbie (2001):

- Trace the person or authority composing the documents;
- Think about the reasons behind the existence of the documents;
- Find out the ways of acquiring the information contained in the documents;
- Investigate the magnitude of biases in the documents;
- Identify the main concepts used by the writer; and
- Internalize the concepts that the documents have demonstrated.

6. RESULTS AND ANALYSIS

6.1. Recent Innovations and Practices – Urban Property Management

Recent innovations in Hong Kong's Urban Property Management space have been aimed at enhancing both quality management and ESG performance. Advanced technologies, particularly in the realm of Prop-tech, have facilitated significant improvements. For example, smart building technologies have enabled more efficient energy use, as real-time monitoring allows for adjustments based on occupancy and demand patterns (Huang et al., 2023). Furthermore, the implementation of digital platforms for tenant communication and feedback has become more prevalent, aligning with quality management principles by providing means for constant service evaluation and improvement.

6.2. Urban Property Management Group of Hong Kong: Quality Management and ESG Performance

Urban Property Management in Hong Kong has become increasingly significant, particularly as the city navigates challenges brought by economic fluctuations, demographic shifts, and growing environmental concerns. The Urban Property Management Group (UPMG) of Hong Kong exemplifies an entity that integrates quality management principles with Environmental, Social, and Governance (ESG) performance. This paper discusses the latest approaches in quality management and ESG performance within the context of Hong Kong's urban property landscape, drawing on recent literature to highlight trends, challenges, and innovations.

6.3. The Key Findings

Research Question-1: Outline the key elements of ISO 9001: 2008 and the SCOR model

Based on **Table-1**, **Appendix-1** and **Figure-1**, on textual search, ISO and SCOR Model with values performance, it is identified that the integration of TQM principles and a robust ISO 9001 (Plan, Do, Check, Act) framework with SCOR Model are possible to meet recent challenges on green issues, for example, energy efficiency, community engagement, and transparent governance to drive operational success. The Supply Chain Operations Reference (SCOR) model is a widely accepted framework for managing and optimizing supply chain operations and it may be applied in the property management service organizations. It provides a structured approach to analyzing and improving values performance in green management, customer communication, staff motivation across five key processes: Plan, Source, Make, Deliver, and Return. More effort is needed on continual improvement and new skills development for creating values in performance.

Table-1: Keyword Searched from Publications – Urban Group

Name	Sources	References
'Community Engagement	2	6
'Continual Improvement	0	0
' Customer Communication	2	44
' Green Management	2	128
'New Skills Development	0	0
Satisfaction	2	2
' Staff Motivation	2	24
'Supplier Control	2	4
' Value Performance	2	30

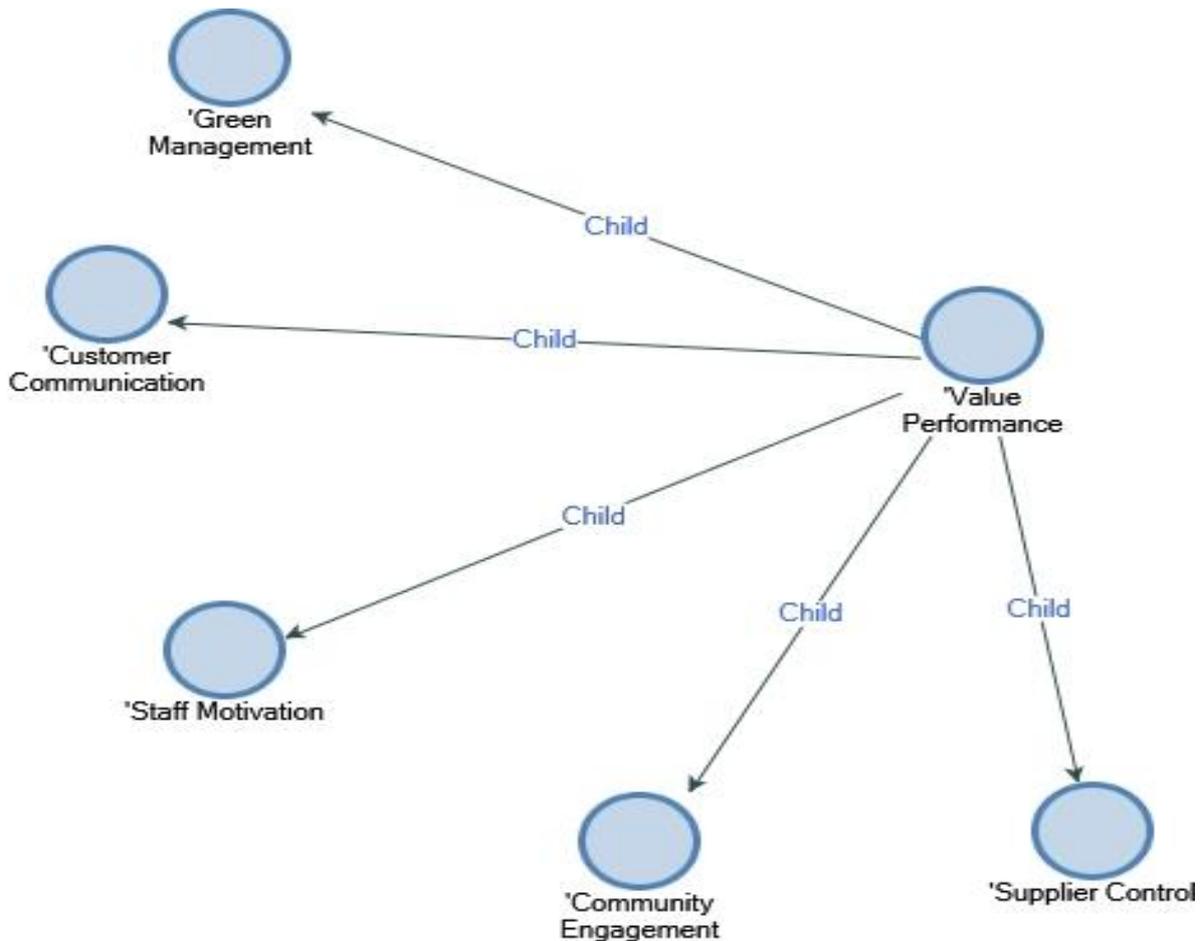


Figure-1: SCOR Model for Quality Property Management under Values Performance

Research Question-2: Examine the differences between ISO 9001: 2008 and the SCOR model for creating value performance

When applying SCOR Model with actions in plan, source, make, deliver and return, it is clear that these 5 steps with ISO clauses of management responsibility, resources management, product realization and measurement mechanism help to build a journey of visualizing the mission/ vision/ objectives with data collection and analysis of a property management service organization. For example: the 7 core drivers, quality improvement circle (QIC), 60 Service Enhancement Teams (SETs), Urban 24-hr Customer Service Centre and Human-Centric System.

6.3.1. Values Performance

“The Corporate Certificate was awarded to HKQAA's certificate holders who have met the criteria that all subsidiaries, divisions or operating units within an applicant organization's core activities should have been certified by HKQAA against a single common standard and that the organization must be holder of a minimum of 3 certificates of the applicable standard to be qualified.”

6.3.2. Customer Communication Procedures

1. Be Clear and Concise
2. Listen Actively
3. Stay Professional
4. Personalize Your Communication
5. Provide Timely Responses
6. Use Multiple Channels
7. Follow Up
8. Ask for Feedback
9. Be Transparent
10. Train your Team

6.3.3. Green Management Procedures

1. Sustainable Resource Use
2. Energy Efficiency
3. Green Supply Chain Management
4. Waste Management
5. Employee Engagement
6. Sustainable Product Development
7. Regulatory Compliance and Reporting
8. Community Engagement
9. Technology and Innovation
10. Continuous Improvement

6.3.4. Staff Motivation

“The 7 Core Drivers include:

- *Visionary Leadership*
- *Six-star Service*
- *Exceeding Customers’ Expectations*
- *Property Asset Management*
- *Continuous Improvement*
- *Green Lifestyle*
- *Community Care”*

Research Question-3: Identification of the key elements in Value Performance

Appendix 1.0 compares the requirements of ISO 9001: 2008, the SCOR model and key word search of Urban Group’s publication on the website. It can be seen that they seem to be compatible, especially with regard to ISO Clauses 5.1 (management commitment), 7.2.1 (determination of requirements related to the product), 7.4 (purchase), 8.2.3 (monitoring process) and 8.4 (measurement and analysis). The internationally recognized requirements (ISO) concern how quality policy and objectives drive values performance with green management, customer communication and staff motivation in the Urban Group with data in their Apps and model to measure the accomplishment of group’s commitment. This is the same rationale as the SCOR Model – “Plan, Source, Make, Deliver” – but with less emphasis on “Return”. The keyword search is found “0” on continual improvement and new skills development which are the areas of improvement for sustainable development of the Group under post COVID-19.

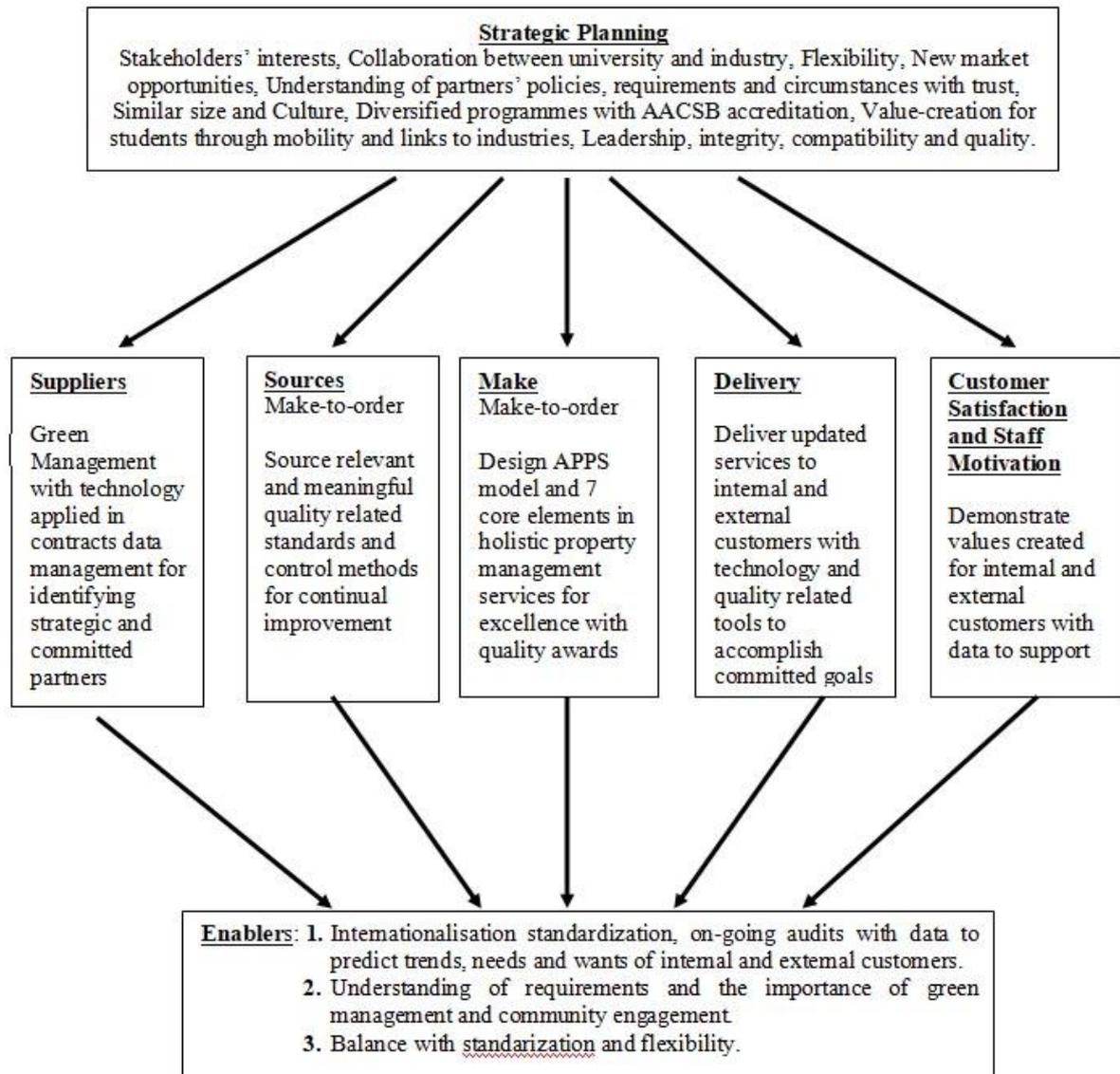


Figure-2 – Process-based SCOR Model for Values Performance

7. DISCUSSION AND CONCLUSION

The Urban Property Management Group (UPMG) of Hong Kong epitomizes the evolving landscape of quality management and ESG performance within urban property management. As the sector grapples with increasing demands for quality and sustainability, the integration of TQM principles and a robust ESG framework will be crucial. Recent trends indicate that the focus on energy efficiency, community engagement, and transparent governance not only enhances organizational reputation but also drives operational success. For UPMG and similar entities, the path forward involves continuous adaptation to emerging challenges while leveraging innovations to optimize both service quality and sustainability. The future of property management in Hong Kong will undoubtedly hinge on the effective synergy of these key management strategies.

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Based on content analysis of the requirements of ISO, the SCOR model and textual analysis of Urban Group case study, it seems that the four processes of the SCOR Model (“Plan, Source, Make, Deliver and Return”) can be applied to values performance. It seems that the “Plan” process requires a committed mission statement with quality related mechanism with data collection and analysis to support internal and external customer satisfaction. “Source” process requires green procurement and management with staff motivation system to meet stakeholders’ requirements. The “Make” and “Deliver” processes require property management service organizations to consider the expectations of stakeholders via obtaining quality awards, setting up quality assurance mechanism with applications and in-house quality enhancement tools with technology for holistic property management services for excellence.

No matter whether the aim of achieving value performance is a process-based or outcome-based approach, management should undertake strategic use of ISO and SCOR Model in the key activities of the system to suit their organizational culture.

The following **Appendix-1** - Key Elements of ISO, SCOR Model and Text Searched on Urban Group Management and **Figure-2** – Process-based SCOR Model for Values Performance help to incorporate the concepts of the ISO and SCOR to show the key elements of values performance from content analysis of selected case of Urban Group in this paper. With commitment from management, staff motivation and communication, and on-going survey on customer communication and satisfaction, documents review, verification and validation, the performance is found with values.

The methodological limitations of the study are the quantity of collected information from one case study in Hong Kong provided. Studies using quantitative survey data from different places might help further our understanding the integration of ISO and SCOR Model for values performance.

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Appendix-1 - Key Elements of ISO, SCOR Model and Text searched in Urban Group Management

ISO		SCOR Model	
ISO 9001	ISO 9001: 2008 Requirements	4 Processes – Plan / Source / Make / Deliver 4 Levels – Plan / Configure / Flow Chart of Process Management / Implement	Urban Group (https://www.urban.com.hk/eng/awards/01.htm)
4	Quality Management System	1 Process -- Planning	Values Performance
5.1	Management commitment	2 Levels -- Planning and Configuring	“The Corporate Certificate was awarded to HKQAA's certificate holders who have met the criteria that all subsidiaries, divisions or operating units within an applicant organization's core activities should have been certified by HKQAA against a single common standard and that the organization must be holder of a minimum of 3 certificates of the applicable standard to be qualified.”
8.4	Measurement and Analysis		
8.5.1	Continuous Improvement		
4.1	General requirements (item) - Measure, where applicable - Analysis and improvement	2 Processes -- Planning and Making 2 Levels -- Planning and Configuring	Values Performance “Introduced the unique 21st Century Integrated TQM Approach - “The Urban Premier Management Model™” in 2002. The Model is a convergence of 3 Gear Forces incorporating “ Professional People, Quality Process and Outstanding Performance ” and orientated around 7 Core Drivers to create the highest operation efficiency.”

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4.2 4.2.1 4.2.3 4.2.4 5.2	Documentation requirements General – Documentation Requirements QMS documentation also includes records – More than one documented procedure Control of Documents Only “External documents” relevant to QMS controlled Control of Records Customer Focus	1 Process -- Planning 3 Levels -- Planning, Configuring and Implementing	Customer Communication Green Management Staff Motivation “The 7 Core Drivers include: <ul style="list-style-type: none"> • Visionary Leadership • Six-star Service • Exceeding Customers’ Expectations • Property Asset Management • Continuous Improvement • Green Lifestyle • Community Care”
5.1 5.3 5.4 8.4	Management Commitment Quality Policy Quality Objectives Measurement and Analysis	1 Process -- Planning 3 Levels -- Planning, Configuring and Implementing	Values Communication “In 2021, Urban Group obtained ISO 45001 which is the latest version of OHSAS 18001, recognizing its essential efforts on assuring occupational safety and health in workplace. ” “Broadway-Nassau Investments Limited was awarded ISO 14001 and OHSAS 18001 certificates in 2006 and received ISO 45001 in 2021. These achievements have demonstrated the Group's consistent pursuit of quality management and consolidated pioneer position as the Quality Market Leader in the Hong Kong property asset and facility management industry.” “In 2021, the Group has invested over HK\$10 million to develop the Sm@rtUrban Apps, which will be launched across the properties and facilities under the management of the Group in phases.”
5.1 6.1	Management commitment Provision of Resources	3 Processes -- Planning, Sourcing, Making and Delivering 4 Levels -- Planning, Configuring, Process Management and Implementing	Community Engagement Customer Communication “ Customer feedback is highly important to Urban. Customer information is gathered and delivered to Urban's strategic partners for evaluation and further improvement. The results are used to forecast customers' needs and requirements more accurately”
4.2.4 5.2 5.3 8.4 7.2.1	Control of Records Customer Focus Quality Policy Measurement and Analysis Determination of requirements related to the product	1 Process -- Planning 3 Levels -- Planning, Configuring and Implementing	Staff Motivation “Urban Group has carried out continuous deployment of the Sm@rtUrban™ Systems which covered all properties and facilities managed by the Group in 2004. On-going deployment has been continued for new management contracts. ”
5 7.2.1 7.4	Management Responsibility Determination of requirements related to the product Purchase	3 Processes -- Planning, Sourcing, Making, Delivering 4 Levels -- Planning, Configuring, Process Management and Implementing	Green Management “ Quality Improvement Circle (QIC) - Continuous Improvement with our Strategic Partners Urban Group has organized a series of Strategic Supply Chain Partnership Continuous Process Management Summits - Quality Improvement Circle (QIC); monthly events designed to share quality improvement knowledge and practices with Urban's strategic partners ”

5.3 5.4 5.5 8.4 8.5.1	Quality Policy Quality Objectives Responsibility, authority and communication Measurement Continual Improvement	1 Process -- Making and Delivering 2 Levels -- Process Management & Implementing	Satisfaction Value Performance “Aim of enhancing the competitiveness of Urban Group and encouraging improvement proposals from our staff, 60 Service Enhancement Teams (SETs) were established. At the same time, quality tools training workshops have been provided to the members of the Service Enhancement Teams.”
7.1 8.2.3/4	Product Realization Monitoring Process & Product	1 Process -- Make and Delivery 1 Level -- Implementing	Satisfaction Value Performance “The Urban 24-hour Customer Service Centre cares our customers full-time for total customer satisfaction.”
4.2.3 4.2.4 7.1 7.3 7.5.1/2 8.2.3/4	Document Control Record Control Product Realization Design inputs to validation of change Control & Validate production and service provision Monitoring Process & Product	1 Process -- Making, Delivering 3 Levels -- Configuring, Process Management and Implementing	Community Engagement Customer Communication Satisfaction Staff Motivation “ HumanCentric System developed by CiF Solutions Limited. The advantages of this system are its flexibility and its powerful functions in cost and benefit analysis ” “It helps maintain high flexibility in the recruitment, performance assessment, promotion, transfer and training and development of all staff , so as to continuously improve manpower quality.”

ABOUT THE AUTHORS

Shirley M. C. YEUNG ⁰⁰⁰⁰⁻⁰⁰⁰²⁻⁵⁵⁶⁶⁻¹⁵⁷³ -- MA, PGDE, DBA;

Professor of Practice & Head of Business at the Gratia Christian College in the HKSAR. She is an IEMA approved Sustainability (CSR) Practitioner, Experienced ISO9001 Principal Auditor, AQIP Assessor, US. HKCAAVQ Subject Specialist and QMS lead auditor. Chair of Community Education, Int. Centre for Env. Education & Community Dev. (ICENECDEV); Ambassador, Institute for Economics & Peace (IEP). She is also the Keynote Speaker at the 24th Int. Conf. on ISO & TQM (**24-ICIT**).

Samuel K. M. HO ⁰⁰⁰⁰⁻⁰⁰⁰²⁻⁸¹⁰²⁻¹⁴⁸¹ -- BSc, MSc, PhD; Research Professor at the Gratia Christian College in the HKSAR. As an ex-Research Fellow in TQM at Cambridge U., and Guest Speaker in Lean Mgt. at Oxford U., he was also Visiting Professor in TQM at Coventry, Paisley, RMIT, Linnaeus, NUS, HKU, CUHK, PKU, THU & SYSU. During 2000-2005, he was the Chief Editor of the Journal of Service Management (Ranked Q1 with H-88 by **SJR**). As the Founder Chair of the Int. Conf. on ISO & TQM (**ICIT**), he is chairing the **24-ICIT** at GCC during 2025/2/6-8. samho@gratia.edu.hk -- *Corresponding Author*

Wilson K. F. CHAN ⁰⁰⁰⁹⁻⁰⁰⁰⁷⁻⁹⁴⁶⁴⁻¹²⁰² -- Lecturer in Business & Management at the Gratia Christian College in the HKSAR. He earned BBA, MSc (Real Estate), CIH Chartered Member, M.H.K.I.H., PFM, HKMAAL (Accredited Mediator), AHKI Arb, CFM(R), Certified Property Manager (PRC) and RPL Assessor (Property Management)

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