Continuous Improvement Methodologies and Practices in Hospitality and Tourism

Abstract
Purpose
Systematic literature review (SLR) of Continuous Improvement (CI) research in the Hospitality and Tourism Management (HTM) literature. Notes trends, parallels, inconsistencies, and opportunities, towards a clearer understanding of current scholarship.

Design/methodology/approach
SLR, finding a dearth of research in the field. After parameter expansion and exclusions, 35 papers across 11 journals are reviewed.

Findings
Studies of CI methodologies and practices are published infrequently, tending to focus on Total Quality Management in European contexts. Despite the guiding customer-centric principles of CI methodologies, studies focus on improving internal processes rather than the service encounter.

Research limitations
The review is guided by sections of the ABS 2015 list, which excludes some journals. Books, conference papers, and trade magazine articles are not reviewed.

Theoretical implications
Recent management theory has witnessed a shift from goods-dominant to service-dominant logic. CI methodologies studied and implemented in the hospitality industry must be correspondingly adapted to produce continuous service improvements.

Practical implications
Identifies clear needs for CI research with a specific hospitality management focus; the development of CI toolkits and curricula for hospitality managers. The development and deployment of CI methodologies and practices in HTM literature and industry should lead to long-term service improvements.

Originality/value
Asserts the need for further context-specific, practice-led research into the refinement and long-term utility of CI methodologies and practices, towards demonstration of significant bottom-line industry impact. Offers a clear SLR methodology, and a definition for CI in hospitality.

Key Words
Systematic Literature Review, Continuous Improvement, Hospitality, Six Sigma, Kaizen, TQM

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Introduction

The hospitality and tourism industries have an annual global impact of over $7 trillion (WTTC, 2016). Pressure to improve quality and efficiency within these service industries is an ever-present feature of much hospitality and tourism management (HTM) literature (Molina-Azorín et al., 2015; Ramdeen et al., 2007; Rauch et al., 2015; Suárez-Barraza et al., 2012; Tsang et al., 2015). The benefits of implementing Continuous Improvement (CI) initiatives have been demonstrated in various contexts (Flumefelt & Green, 2013; Singh et al., 2010; Terziolski & Power, 2007; Toussaint & Barry, 2013), including service and public sector industries (Antony et al., 2007; Fryer et al., 2007; Tsang & Antony, 2001). While recent scholarship notes the potential of such methodologies and practices in the hospitality industry (Antony, 2015; Pearlman & Chacko, 2012; Sund, 2016), there are few in-depth, context-specific studies of CI in the HTM literature, no useful definitions and, to the best of our knowledge, no systematic literature reviews.

This study employs a systematic literature review (SLR) methodology to gather the HTM literature with a CI focus, chart its development, and better understand its current state. We reveal an insubstantial and theoretically disengaged body of scholarship, dominated by studies of Total Quality Management (TQM) implementation in European contexts. As the successful implementation of CI relies upon the cumulative insights provided by long-term academic studies (Antony, 2004), this disengagement in the academic literature can only prove detrimental to practice, presenting a clear gap in the literature between CI in theory and in practice. We suggest that HTM scholarship works toward the development of CI methods, toolkits, and curricula specific to the hospitality service encounter. Despite the clear customer-focus driving CI methodologies, we find a majority of studies neglecting customer perspectives and the actual moment of service, instead prioritizing internal company viewpoints, processes, and experiences. Considered in relation to the shift in much services research from a goods-dominant logic (G-D) towards a service-dominant logic (S-D), we find studies of CI in the HTM literature must engage with and adapt to contemporary customer-centric management theory. Given the lack of CI theorization (Shafer & Moeller, 2012) and the lack of S-D logic in practice (Vargo & Lusch, 2017), we suggest that CI provides the practical tools to be adapted for hospitality practice through S-D logic.

The paper now proceeds as follows. First, a brief breakdown of the ways in which CI methodologies are generally understood and applied is offered, and a gap identified in the HTM literature. Second, the SLR methodology addressing this gap is detailed. Third, results are presented and fourth, analyzed, before the fifth section discusses the findings. The final sections conclude and acknowledge limitations.

Continuous Improvement

CI is variously defined as “an organisation-wide process of focussed and sustained incremental innovation” (Bessant & Caffyn, 1997, p. 10), “a culture of sustained improvement targeting the elimination of waste in all systems and processes of an organization” (Bhuiyan & Baghel, 2005, p. 761), and “a systematic management approach that seeks to achieve ongoing incremental performance enhancements through a gradual never-ending change process” (Audretsch et al., 2011, p. 1922). The only definition of CI that we found generated in the HTM literature is Testa and Sipe’s (2012, p. 654) operational definition (derived from interviews with hospitality and tourism managers): CI “strives to improve the business and make things run smoother.”

CI facilitates improvements by making available a set of increasingly sophisticated tools and techniques designed to locate and limit sources of inconsistencies, wastes, and any other issues leading to reduced efficiency. Bhuiyan & Baghel (2005) identify the most widely-known CI variants as...
Lean manufacturing, Six Sigma, Lean Six Sigma (LSS), Kaizen, and the Balanced Scorecard (BS), also finding a conceptual link between CI and Total Quality Management (TQM). The inclusion of the BS is somewhat surprising here, given it is typically seen as less a CI philosophy/methodology and more a strategic control tool (Andersen et al., 2004). We therefore exclude BS studies from our review. The remaining CI variants are now briefly outlined to define our conceptual boundaries, before being considered together, and employed in the SLR.

Lean
Lean aims to eliminate waste and inessential actions; continually maximizing quality and minimizing costs (Alsmadi et al., 2012). Wastes are categorized into seven types: defects; inventory; waiting time; motion; overproduction; over-processing; and rework, with two further types added recently: underutilization of creativity and environmental waste (Vinoth et al., 2012). Bhuiyan and Baghel (2005, p. 763) note that these wastes are defined by the customer, being “anything for which the customer is not willing to pay.” The established set of production-focused Lean tools is now expanded to services, and tempered with techniques aiming to improve human relations and sustainability. Recent literature reviews of Lean research find a corresponding focus on implementation in specific sectors (e.g., healthcare) and in particular organizational subdivisions (e.g., accounting) (Poklinska, 2010; Stone, 2012).

Six Sigma
Based upon the DMAIC cycle (define, measure, analyze, improve, control), Six Sigma is driven by data, and aims to eliminate causes of defects, errors, or failures (Antony, 2004). ‘Six Sigma’ refers to the crucial point at which the cost to eliminate a defect is higher than the cost of its repair: 3.4 imperfections per million units (Brett & Queen, 2005). Again, the customer defines what constitutes a defect (Linderman et al., 2003). Tjahjono et al.’s (2010) literature review finds support for adopting the methodology, with a reduction in process variability reported by adopters largely engaged in manufacturing, although adoption in the services industries is increasing (e.g., Benedetto, 2003).

Lean Six Sigma
LSS borrows from Lean and Six Sigma methodologies to both reduce waste and eliminate defects, thereby maximizing value (Setijono et al., 2012). Although LSS studies tend to be based around manufacturing (Raja Sreedharan et al., 2016), recent literature turns toward customer-facing service industries (Antony, Svensson, Ba-Essa, Bakhsh, & Alblivi, 2015; Tsironis & Psychogios, 2016). Appraisals of Lean, Six Sigma, and LSS are not universally positive, with studies showing mixed results (Schonberger, 2007), others offering sustained critique (Naslund, 2008), and several finding negative impacts on workers (Conti et al., 2006; De Treville & Antonakis, 2006; Vidal, 2007). Responding to such criticism is clearly crucial to the sustainability of CI methodologies.

Kaizen
Kaizen is a prominent CI philosophy and methodology (Naslund, 2008). Although Kaizen literally translates as change for the better (Singh & Singh, 2009), the focus is on incremental CI through employee participation (Paul Brunet & New, 2003) and understanding the customer (Garcia et al., 2013). Paul Brunet and New (2003) find significant ambiguity and diversity in how the concept is interpreted in practice, dependent upon the specific socio-economic context, location, and history of the organization. Singh and Singh’s (2009) review finds Kaizen mainly used in manufacturing, but posits its successful application in the service industries.
Total Quality Management

TQM necessitates the engagement of every facet of the organization in the pursuit of quality. TQM pioneers include Crosby (1980), Deming and Edwards (1982), and Juran (1986), whose systematic, analytic approach to quality became popular in the West only after successes in Japan in the 1950s (Witt & Muhlmann, 1994). TQM also places the customer at its core (Deming & Edwards, 1982; Legrosen, 2001). Although TQM was principally designed for and implemented within the manufacturing industries, TQM is now increasingly being applied in the service industries (Agus, 2004; Brah et al., 2000; Camison, 1996; Dahlgard-Park et al., 2013; Prajogo, 2005).

Table 1 offers a brief comparison of the above CI methodologies and practices.

[INSERT TABLE 1 HERE]

Continuous Improvement, Hospitality, and Service-Dominant Logic

The CI variants above emphasize a series of holistic, long-term commitments to improving the organization, with a shared need to understand customer requirements. Indeed, Gummesson et al. (2010) note that, since the 1980s, quality management has worked as part of a paradigm shift away from a focus on internal efficiency and product-related processes, towards the inclusion of and emphasis upon customer needs (Gronroos, 2007). This shift accompanies the gradual adoption by the service industries of CI methodologies and practices from manufacturing, observable in the literature outlined above.

Brotherton’s (1999) definition of hospitality as a human exchange based on specific products and/or services, characterised by being contemporaneous, voluntary, and mutually beneficial helps us to understand the central requirement for the understanding and management of interaction and setting in hospitality. Like other service encounters, the moment of exchange in hospitality is intangible (produced and/or consumed in the moment), heterogeneous (relying upon context and personal feelings), inseparable (requiring the activity of both producer and consumer), and perishable (expiring immediately following the encounter) (Harvey, 1998). The intangibility, heterogeneity, inseparability and perishability of hospitality (and tourism) offerings means that continuously improving the service encounter is a more complex and subjective process than its manufacturing equivalent, which must take into account two perspectives: the customer and the producer.

Following Vargo & Lusch’s (2004) recalibrations in marketing theory, a theoretical shift towards Service-Dominant Logic (S-DL) may be observed in recent business and management scholarship (e.g. FitzPatrick et al., 2012; Ordnini & Parasuraman, 2010; Shaw et al., 2011), away from the Goods-Dominant Logic (G-DL) that has been inherited from the manufacturing industry (Alves et al., 2016). This shift in theory is concurrent with the paradigm shift in quality management noted above. While G-D focusses on the efficient production and sale of standardized goods, thus separating the firm from the customer, S-D sees the provision of service as the “fundamental basis of exchange”, with interactions between customer and company generating (or co-creating) value, for both services and products (Vargo & Lusch, 2008, p. 6). These interactions lead to the co-creation and/or co-production of value (Chatthoth et al., 2013; Chatthoth et al., 2016).

Recent services industry studies argue that the uncritical adoption of theoretical approaches derived from the manufacturing sector is at best limited, and at worst not fit for purpose when considering intangible, process-driven offerings (Osborne et al., 2012; Radnor & Osborne, 2013; Shaw et al.,

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2011). The little research into CI and S-D identifies as potentially disastrous attempts to apply
wholesale the G-D of the manufacturing sector to services. For example, in working towards a theory
of Lean for public services, Osborne et al. (2012, p. 136) refer to this as the “product-dominant flaw”
of services management theory. These corresponding shifts in CI and services management thinking
(see Figure 1) are of clear theoretical and practical relevance to those in or studying the Hospitality
industry, which has customer service at its core. At the same time, Saarijärvi et al. (2013) find the
vast majority of research into S-D to be theoretical, with Vargo and Lusch (2017) recently
acknowledging that the dearth of practical applications of S-D must be addressed for the theory to
develop.

[INSERT FIG 1 HERE]

Figure 1 represents a simplification of these shifts, and should not be taken to imply that S-D is only
relevant for the services industry; rather S-D sees all industries as based around the provision of
service (Vargo & Lusch, 2016). While the literature suggests that interest in CI for services is
increasing (Fryer et al., 2007; Huq, 2005), initial searches show that discussions of CI in the HTM
literature are scarce. Reviews of CI research in the general management literature tend to focus on
recounting the history of CI (e.g. Bhuiyan & Baghel, 2005; Clegg et al., 2010; Holweg, 2007);
discerning critical success factors and criteria (e.g. Coronado & Antony, 2002; Jabnoun, 2001; Kaye &
Anderson, 1999); and delineating and defining individual CI methodologies (e.g. Andersson et al.,
2006; Dahlgaard & Mi Dahlgaard-Park, 2006; Deddia, 2005). More specific empirical scholarship
largely focus on SMEs (e.g. Antony et al., 2008; Kumar, Antony et al., 2006) and healthcare (e.g.
Poksinska, 2010; Shortell et al., 1995). Despite several studies making calls for CI research within
HTM (Antony, 2015; Pearlman & Chucko, 2012; Sunder, 2013; 2015), to the best of our knowledge
there are no reviews of CI within HTM. This paper addresses this gap through an SLR, analyzing the
results in relation to both the customer-focused ideals of CI, and the G-D to S-D theoretical shift. We
suggest that the shift in theory from goods to services may find a practical application through the
adaptation of the tools and techniques of CI. The SLR is now detailed.

Methods

In order to gain a full understanding of CI research within the hospitality management literature, the
authors performed a SLR, the rigor and validity of which is asserted by Denyer and Tranfield (2005),
and Wang and Chugh (2014). All stages of the SLR are shown in Figure 2, adapted from Wang and
Chugh (2014). Having established our research objectives, we then defined our conceptual
boundaries. Due to earlier searches producing little CI research in HTM, we referred to articles
outside of HTM to bring together and differentiate our selection of CI methodologies and practices
(see Table 1 above). Following Farrington et al. (2017) and Wilson, Arshed et al. (2017), we searched
articles published in hospitality and tourism journals ranked 3 or 4 in the ‘Sector Studies’ section of
the ABS Academic Journal Guide 2015. Despite criticisms of journal rankings and the ABS guide in
particular (Sangster, 2015; Tourish & Willmott, 2015), the ABS list is extensive and widely used
(Rowlinson et al., 2011). While the review takes in some tourism literature in order to gain a fuller
sense of how CI has been understood in related services field, the focus of the study is CI in
hospitality. Databases searched included ScienceDirect (used by Li, 2008), EBSCOhost (used by
Denizci and Mohammed, 2015) and Google Scholar (used by Zeng and Ryan, 2012). Keywords used
in the search included any combinations of ‘Continuous Improvement’, ‘Lean’, ‘Six Sigma’, ‘Lean Six
Sigma’, ‘Total Quality Management’, and ‘Kaizen’. Chronological parameters were initially guided by
the appearance of two issues of the International Journal of Contemporary Hospitality Management
(IJCHM) devoted to CI in 1994, up to and including August 2016. A search of titles, abstracts and

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keywords was performed and our exclusion criteria applied to remove duplicates, returns not substantially focused on CI, and those not including original research, such as book reviews.

[INSERT FIG 2 HERE]

This initial search returned only 31 results, of which 14 appeared in the aforementioned issues of ICHM. The decision was made to expand the search parameters to include journals with ABS rankings of 1 or 2, and journals from the 'Operations and Technology Management' section of the ABS Guide 2015. Chronological parameters were expanded to include articles from 1984-2016. This follow-up search returned an additional 22 results, with 53 results in total. Further filtering removed 17 articles; five focusing on Benchmarking, five looking at ISO9000/1, and eight that not focused on hospitality or tourism, leaving 35 articles for final review. Although this was not a major increase on initial searches, the authors agreed that further widening of search parameters was unlikely to significantly augment the literature review. The authors acknowledge that, despite the systematic method, the literature review may not be exhaustive.

This dataset was compiled into a master table in chronological order. Organizing the material in this way allowed the authors to establish trends and developments within CI hospitality literature, thereby facilitating the effective analysis of the data (following Denizci Guiliet & Mohammed, 2015; Farrington et al., 2017). Aiding the analysis, reference details were delineated on the table, as well as:

- the specific type of CI studied in each article (e.g. TQM)
- the specific tools and techniques examined (if any)
- the specific industrial context (e.g. hotels, restaurants)
- details of research methodology and methods (e.g. Qualitative, Interviews)
- the national context(s) featured in each
- whether the article had a customer focus, company focus, or considered both (balanced focus)
- benefits of and barriers to CI implementations

The findings are now presented and analyzed.

Results

Of the 35 studies reviewed, ICHM contained the highest number of publications relating to CI: 12; seven in the 1994 issues. Figure 3 shows the spread across journals. Twenty-six of the articles studied hotels or lodging, two looked at restaurants, four at tourism, and three combined these: Wyckoff’s (1984) study of restaurants and airlines; Nightingale’s (1985) findings across hotels, restaurants, and motorway services; Randall and Senior’s (1994) study of hospital hotels.

[INSERT FIG 3 HERE]

Studies into CI in HTM were largely published in the mid-1990s (see Figure 4) which, given the dominance of TQM in our review (twenty-one studies) is consistent with Näslund’s (2008) findings regarding the popularity of TQM during the same period. Again, this is somewhat skewed by the 1994 issues of ICHM.

[INSERT FIG 4 HERE]

Research methods are largely qualitative (twenty studies). The dominant approach to research was the case study (eight), with questionnaires being the most frequently employed method (twelve).

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Only three relevant literature reviews have been published over this thirty-two year period, beginning with Nightingale (1985), examining the concepts of service and quality within the framework of hospitality, followed up by Witt and Muhlmann’s (1994) review of TQM in tourism, before Sutton’s (2014) exploration into Human Sigma in tourism. Of the eight case studies, six deploy TQM, one explores quality and CI generally, and only one looks at Six Sigma in relation to HTM. This leaves no case studies of Lean or Kaizen methodologies in HTM. Research mostly finds its data in Europe (eighteen) and North America (nine), with the UK, Spain, and the US specifically dominating. In terms of focus of CI, the twenty-five studies of CI being applied to internal (company) processes clearly outweighed the three taking a customer focus, or the seven attempting to improve both (balanced), suggesting both a shift away from customer-centric CI ideologies, and the continued presence of G-D over S-D in HTM thinking.

Analysis

Foundations of CI in HTM

Many studies demonstrate the benefits of CI, while identifying challenges to their implementation. The earliest article reviewed provides the most comprehensive list of tools, techniques, benefits and challenges for CI in hospitality (Wyckoff, 1984). Wyckoff (1984) gives examples from restaurants and airlines: employee involvement in developing systems and training; dedicated councils and committees; employees setting self-targets; open communication; customer feedback creating priorities and redesign; tightening of performance standards; an emphasis on ‘front-room’ operations (customer interaction); Total Quality Control; minimizing the total cost of quality (COQ); statistical process control; Pareto analysis. These are shown to increase customer and employee satisfaction, leave customers willing to pay more, and reduce employee turnover and absenteeism (Wyckoff, 1984). Wyckoff’s (1984) identified barriers to success are similarly enduring: uncontrolled and unstructured measurements of customer satisfaction; neglecting customer satisfaction with the competition; a lack of company-wide commitment; the expectations of immediate improvements and instant customer recognition. In addition to arguing that hospitality provides “primarily person-related services for individuals”, thereby prefiguring S-D, Nightingale (1985, p. 10) offers several challenges to achieving quality in hospitality that remain relevant. These include ill-defined, poorly communicated quality standards, unawareness of non- Achievement, responsibility for quality not shared by all, managerial or structural ineffectiveness, and insufficient or inappropriate resources (Nightingale, 1985).

TQM: Features and benefits

While Heymann (1992) provides an early ten-point model for quality management in hospitality, Saunders and Graham (1992) experienced difficulty obtaining quantifiable data for TQM measurement. All seven studies from the 1994 IJCHM issues looked at TQM; six focused on internal service quality (Day & Peters, 1994; Dodwell & Simmons, 1994; MacVicar & Brown, 1994; Randall & Senior, 1994; Sparrow & Wood, 1994; Zettie et al., 1994); one identifying customer-facing service incidents as opportunities for improvement (Lockwood, 1994). In their case study of TQM at Bergstrom hotels, Breiter et al. (1995) find that a training certification process, involving employees in developing departmental systems, making communication more open, and using data-based decision-making led to reduced staff turnover, housekeeping, refuse collection, and maintenance cost savings, and a significant sales increase. It was deemed critical that the TQM vision was shared by all and that team achievements were recognized. Meanwhile, Partlow (1996) asserts the importance of a hotel’s HR department in developing an organization-wide culture of TQM.

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Luk and Layton (2004) assert the importance of accurate, customized measures to collect customer data, a view shared by Arasli (2012) in producing an ‘in-house’ quality improvement model for hotels, in which customer feedback is crucial. Customer perceptions are prioritised in Getty and Getty’s (2003) production of a Lodging Quality Index, towards an organization-wide monitoring of quality. Wang et al. (2012) find TQM positively affecting hotel performance, asserting that response to competitors may be more important than customer focus. Paraskevas’s (2001) study into internal service quality works to redress what is characterized as an imbalance of research leaning towards external customer satisfaction. Although this is certainly important, our literature review finds an imbalance in the other direction.

Several studies discuss the impacts of already-implemented CI initiatives upon internal practices. Benavides-Chicón and Ortega (2014) find a significant impact upon productivity in Spanish hotels of some aspects of TQM: strategy, processes, products and services, and global quality, with the leadership and people dimension having little impact. Benavides-Velasco et al. (2014) find the successful implementation of TQM complements the development of CSR in Spanish hotels. Molina-Azorín et al. (2015) consider the impact of quality management practices in hotels upon environmental management, finding quality management practices (such as training, use of data, cooperation, communication of goals) lower costs and aid environmental management, thereby improving competitive advantage. Less positively, Masry et al. (2015) find applications of TQM in Alexandria hotels misguided, with a lack of management and employee interest leading staff and customers dissatisfied.

**Lean**

The only article devoted to Lean in hospitality provides a breakdown of the impact upon waste reduction of seven value stream mapping techniques, being Process activity mapping, Supply chain response matrix, Production variety funnel, Quality filter mapping, Demand amplification mapping, Decision point analysis, and Physical structure with particular reference guest reservation and reception, and to hotel procurement systems (Vlachos & Bogdanovic, 2013). Only the production variety funnel and supply chain response matrix did not significantly reduce waste (Vlachos & Bogdanovic, 2013).

**Six Sigma**

Six Sigma appears in Pearlman and Chacko’s (2012) study of Starwood Hotels, attributing the use of tools such as fishbone diagrams, Pareto charts, and control charts to Starwood’s financial gains and outperformance of their competitors, Marriot and Hilton.

**Discussion and Conclusions**

**CI in HTM: Impacts and challenges**

The above review shows that the CI practices most frequently mentioned as having significant impacts in HTM are:

- Accurately understanding customer priorities through data collection
- Company-wide commitment to culture of quality
- Employee involvement in developing standards, targets and systems
- Recognizing and rewarding team achievements
- Open, cooperative communication at all levels

The most frequently mentioned barriers to CI in HTM are:

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ill-conceived measurements of customer experience (i.e. not taking into account what the customer actually wants)
- Vision not shared across the company
- Ineffective management of CI initiatives
- Expectations of quick fixes and immediate results

Theorization of CI in HTM

On a theoretical level, discomfort with the uncritical application of manufacturing techniques to the services industries is seen in the earliest articles, with Wyckoff (1984, p. 78) asserting that

"[w]here manufacturing techniques have been applied to the service industries for improved consistency and productivity, services have too often become standardized, and personal interaction lost. Particularly in the hospitality industry, some managers and customers feel that the loss of the personal touch is too severe a penalty to pay for productivity gains through "production line" approaches."

Heymann (1992, p. 52) agrees that "the hospitality industry can no longer look to manufacturing firms for guidance. The approaches that make sense for an organization where the product is tangible and can be inventoryied do not always translate into the service environment." Although Heymann (1992) provides only anecdotal evidence of benefits, his ten-point model provides a sound consolidation of prior research into quality, again emphasizing the importance of organization-wide commitment to a culture of quality, developing customer and employee-driven standards and innovations, and measuring and rewarding team achievements. Challenges are multitudinous, including ineffective conflict resolution from management, misplaced expectations of short-term results, and a lack of company-wide commitment, with the overriding requirement for success being a long-term vision of aligning quality efforts into one unified approach (Heymann, 1992).

Witt and Muhlemann's (1994) review of TQM offers similar cautions for the adoption of CI from manufacturing, by services. Sutton (2014) suggests that a more people-centric version of Six Sigma, Human Sigma, may be more appealing, at least to the tourism industry. Again, although the present study principally concerns the hospitality industry, insights such as these from the tourism industry retain theoretical relevance. Indeed, a return in services to the customer-centric and employee-driven foundations of CI methodologies could help practitioners attend to the criticisms of Lean, Six Sigma, and LSS noted above (e.g. Conti et al., 2006; De Treville & Antonakis, 2006; Vidal, 2007), where customer and employee responses to CI initiatives are valued and acted upon.

From our literature review, scholarship on CI in HTM can be broadly divided into three streams: studies focusing on company features (e.g. supply chain, training, organizational structure); customer features (e.g. customer satisfaction and feedback, and the service encounter); and attempts to look at the whole picture. While these are all valuable in working towards a more complete understanding of CI in HTM, the vast majority of the literature reviewed focuses on improving company features rather than customer experience, straying from the customer-centrism at the foundations of CI, and working with what might be understood as a G-D rather than S-D logic.

Conclusions

This systematic literature review of continuous improvement in the hospitality and tourism management finds an insubstantial body of literature, an imbalance towards understanding the company over the customer, and limited awareness of specific CI tools and techniques. These features appear to result from attempts to adopt CI from manufacturing rather than adapting CI to services. The lack of scholarly engagement with the foundational principles of many CI

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methodologies, particularly the assertion that improvement stems from understanding customer needs, has led to the prioritizing of internal processes over service encounters. This company-centric approach is useful towards producing a fuller picture of areas of waste and inefficiency, yet the picture remains incomplete without corresponding attention to customer needs.

Early scholars acknowledged the customer-centric principles of CI, yet recent studies of CI in HTM appear largely to have forgotten or abandoned them. Corresponding theoretical shifts in the management literature from G-D towards S-D have been neglected as a potential source for recalibrating CI approaches, to prioritize customer service improvements. Given the centrality of customer service and the crucial role of public customer feedback to the industry, the time is right for the development of a body of hospitality-specific CI scholarship that seeks to improve service through customer understanding. Indeed, a customer focused CI may be best placed to provide practical applications of S-D logic. The lack of services-specific theorization in CI scholarship could be filled with the abundant theorization of S-D, where carefully considered theories of co-creation and co-production could be helpfully used to adapt the tools of CI to a hospitality environment, placing the customer’s perspective back into discussions of value and waste.

We find the lack of recent studies not symptomatic of an outright rejection or replacement of CI; rather it is an indication of a lack of awareness of these methodologies within hospitality. We have tried to make the case that the customer-centric philosophies, tools and techniques of CI should not be dismissed simply because other ways of thinking are also effective in hospitality. Rather than assert the primacy of CI, we thus make the case for the continued relevance of CI methodologies and practices, which, correctly tailored, can function alongside and complement more recent theorisations about services and hospitality. One of the strikingly useful aspects of CI methodologies and practices is the inherent practicality and communicability of ideas such as Lean and Kaizen, relative to ideas such as co-creation and S-D logic. Bridging the gap between theory and practice is a continuing challenge for academics and practitioners. We thus suggest that, for instance, the introduction of a relatively easy-to-follow philosophy such as Lean may pave the way for managers to introduce more abstract concepts such as co-creation.

Theoretical Implications

The contribution is threefold. First, we draw comparisons between the recent shift in management thought from G-D to S-D logics and the overarching emphasis on the customer in CI methodologies and practices. In doing so we assert the utility of the CI approach to the explicitly services-based hospitality industry. Second, we argue that in order for CI methodologies and practices to be most effective in the services industries, they must be adapted to fit, rather than adopted directly from the manufacturing industries. This adaptation may be achieved through the use of S-D theory, with the resulting tools providing a corresponding practical expression of this customer-centric logic.

Third, we argue that industry and academia must work together in producing and analysing customer-centric data, and formulating the tools and techniques of CI that most effectively improve hospitality services.

The HTM literature should return to the principles of CI methodologies, and adapt customer-centric CI practices according to S-D logic. In order to produce hospitality-specific CI theory, scholars must re-engage with and seek data from the industry and its users. While understanding internal processes and engaging internal customers must inform CI implementation, losing sight of the customer will limit the success of these initiatives. We suggest that definitions of CI in the hospitality industry should similarly return to the ideological roots of the chosen methodology, placing the customer and the service encounter at the center of CI initiatives. While the standard CI

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requirements of organization-wide commitment, employee involvement, team rewards and open
communication may be largely portable across sectors and industries, the role of the customer in
services, and particularly in the hospitality industry, necessitates a nuanced, critical, and customized
approach to CI in hospitality management. Such an approach requires a context-specific engagement
with the theory and practices of CI, and an exploration of the potential for hybrid methodologies
that combine the tools and techniques deemed most appropriate for improvements to the service
encounter. For the hospitality industry, we define CI as:

- a company-wide commitment to continuously improving the service encounter through data-
driven understandings of customer needs.

This broad definition is designed for incremental refinement by and customization to each
organization, and to be operationalized through the careful selection and implementation of CI tools
and techniques.

Practical Implications

The practical implications of the above discussion are principally related to bridging the gap between
hospitality scholarship and practice. Hospitality managers wishing to utilize CI are likely to benefit
from academic research into specific industrial contexts, while hospitality scholars are likely to
benefit from access to and interactions with these contexts. The literature reveals a limited
awareness of CI tools. Engagements between academia and industry will allow the sharing of data,
analysis and experience that is key to developing CI methodologies, practices, and toolkits that work
for hospitality management. The opportunity exists for academics and industry practitioners to
develop CI curricula and toolkits. Incorporating such materials into higher education would better
prepare students for the profession, and reduce training costs to companies. This will see students
graduating already better qualified to initiate CI practices, and better inform and motivate existing
hospitality employees. Management already engaged in CI initiatives should reassess the focus of
their strategies in relation to the customer.

A further practical implication involves a shift in management thinking and practice regarding the
target of continuous improvement, i.e. what is being improved. In hospitality, it is the service
encounter that is likely to benefit from improvement, and managing this encounter involves
attention to the human elements interacting therein, such as emotions, health (mental and
physical), and snap judgements. While variation, waste, and defects might offer clear points of
weakness to be improved in the manufacturing industry, the unique attributes and needs of
individual customers and employees require a more nuanced unpacking and understanding before
improvements can be made.

Limitations and Future Research

This paper is not without limitations. While the 2015 ABS list has been used in previous studies, and
we are confident that the addition of further titles would not significantly alter our findings, this
method does limit the number of papers, as does the absence of books, conference papers, and
trade magazines.

Given the lack of studies into specific CI methodologies, researchers should investigate the potential
utility of the principal manifestations of CI, including details of tools, roadmaps, and data from
customers. Longitudinal case studies are likely to be most useful. Further research should examine
the teaching of CI methodologies in higher education, to understand the introduction of CI to the
potential hospitality workforce. CI research is largely focused on Anglo-American contexts, and
studies should be widened to include, for instance, Islamic hospitality management contexts.

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Works Cited


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<table>
<thead>
<tr>
<th>CI Methodology</th>
<th>Defining Literature</th>
<th>Example tools, methods, and concepts</th>
<th>Use in HTM</th>
<th>Principal goal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lean</strong></td>
<td>Womack et al. (1990)</td>
<td>Flow; Pull; Customer value; Value Stream Mapping; SS; kanban; poka-yoke; Gemba Walk; A3 Reporting; Process activity mapping; Supply chain response matrix; Production variety funnel; Quality filter mapping; Demand amplification mapping; Decision point analysis; and Physical structure</td>
<td>Hotels (Vlachos &amp; Bogdanovic, 2013)</td>
<td>Elimination of waste ('muda')</td>
</tr>
<tr>
<td><strong>Six Sigma</strong></td>
<td>Schroeder, Linderman, Liedtke, and Choo (2008)</td>
<td>Belt certification system; DMAIC toolbox; expected financial benefits from every initiative; SERVQUAL; Service Blueprinting; Policy deployment (Hoshin Kanri)</td>
<td>Hotels (Pearlman and Chacko, 2012); Calls for HTM research (Antony, 2015; Sutton, 2014)</td>
<td>Eliminating defects through data-driven analysis</td>
</tr>
<tr>
<td><strong>Lean Six Sigma</strong></td>
<td>Arnheiter and Maleyeff (2005)</td>
<td>Combining above with emphasis on order and timings of implementation</td>
<td>Call for HTM research (Sunder, 2016)</td>
<td>First eliminating waste facilitates elimination of defects</td>
</tr>
<tr>
<td><strong>Kaizen</strong></td>
<td>Imai (1986); Paul Brunet and New (2003)</td>
<td>Zero Defect Mindset; Small Group Activities; Quality Circles</td>
<td>None</td>
<td>Eliminate defects through employee engagement</td>
</tr>
<tr>
<td><strong>TQM</strong></td>
<td>Crosby (1980); Deming and Edwards (1982); Juran (1986)</td>
<td>Statistical Process Control; Total Productive Maintenance; Control charts; Pareto charts</td>
<td>Hotels (e.g. Benavides-Chicón &amp; Ortega, 2014; Molina-Azorín et al., 2015; Wang, Chen, &amp; Chen, 2012); Restaurants and airlines (Wyckoff, 1984)</td>
<td>Increase customer satisfaction and reduce resources.</td>
</tr>
</tbody>
</table>

Table 1: CI Methodologies and Practices compared

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Figure 1: Shifts in CI and Management Thinking
Research Objectives
- To conduct a Systematic Literature Review (SLR) of Continuous Improvement (CI) methodologies and practices in Hospitality and Tourism Management (HTM).
- To compile and critically evaluate existing research into Lean, Six Sigma, LSS, Kaizen, and TQM in the HTM literature, noting trends and variations.
- To consider the suitability for HTM of current research into CI methodologies and practices in the HTM literature.

Defining Conceptual Boundaries
- Broad definitions of Lean, Six Sigma, LSS, Kaizen, and TQM (from HTM literature wherever possible).
- Outline defining characteristics of HTM as distinct from other industries and sectors.

Setting the Inclusion Criteria

Search boundaries
- ABS Journal list 2015: "Sector Studies"
- Electronic databases (e.g. ScienceDirect, EBSCOhost Business Source Premier, Google Scholar, journal websites).

Search keywords
- Continuous Improvement
- Lean
- Six Sigma
- Lean Six Sigma
- Kaizen
- Total Quality Management

Cover period
- 1994-2016

Applying the Exclusion Criteria
- Remove grey literature (e.g. conference papers, books, white papers)
- Remove articles published in languages other than English
- Remove duplicate studies (using Endnote)
- Remove articles not substantively related to CI research domain
- Remove all articles outside cover period

31 articles – validity checked independently by Researchers 1 & 2 – decision to return to literature with expanded parameters

Resetting the Inclusion Criteria

Expanded search boundaries
- ABS Journal list 2015: "Sector Studies" + "Operations and Technology Management"
- Electronic databases (e.g. ScienceDirect, EBSCOhost Business Source Premier, Google Scholar, journal websites).

Search keywords
- Continuous Improvement
- Lean
- Six Sigma
- Lean Six Sigma
- Kaizen
- Total Quality Management
- + Hospitality in "Operations and Technology Management" section

Expanded cover period
- 1994-2016

Reapplication of Exclusion Criteria as above

31 articles – validity checked by Researchers 1 & 2

Figure 2: SLR methodology with expanded parameters (adapted from Wang & Chuah, 2014)
<table>
<thead>
<tr>
<th>Journal</th>
<th>Total CI Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cornell Hotel &amp; Restaurant Administration Quarterly</td>
<td>3</td>
</tr>
<tr>
<td>Industrial Management &amp; Data Systems</td>
<td>1</td>
</tr>
<tr>
<td>Information and Management</td>
<td>1</td>
</tr>
<tr>
<td>International Journal of Contemporary Hospitality Management</td>
<td>12</td>
</tr>
<tr>
<td>International Journal of Hospitality Management</td>
<td>5</td>
</tr>
<tr>
<td>Journal of Business &amp; Retail Management Research</td>
<td>1</td>
</tr>
<tr>
<td>Journal of Quality Assurance in Hospitality &amp; Tourism</td>
<td>3</td>
</tr>
<tr>
<td>Service Industries Journal</td>
<td>1</td>
</tr>
<tr>
<td>Total Quality Management</td>
<td>2</td>
</tr>
<tr>
<td>Total Quality Management &amp; Business Excellence</td>
<td>2</td>
</tr>
<tr>
<td>Tourism Management</td>
<td>4</td>
</tr>
</tbody>
</table>

Figure 3: Total CI publications by journal 1984-2016
Figure 4: Total CI publications by year 1984-2016