Show me the money: the magic of the marketing and finance interface to drive financial performance in hospitality operations

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Chapter 7

Conclusion

We embarked on this journey to deepen our understanding of how customer satisfaction drives financial performance, by integrating decision-making insights from marketing and accounting. Positioning customer satisfaction as a profit driver alongside price and customer traffic in cross-level profitability models, this thesis seeks to bridge the gap between the marketing, financial, and accounting information perspectives. This contribution is particularly significant for management accounting, as it addresses a long-standing interdisciplinary debate about the limitations of traditional systems in capturing and leveraging customer-driven value creation. Through the examination of various customer satisfaction-profitability dynamics across multiple contexts and levels of detail, this research establishes a foundation for more integrated approaches to performance measurement and decision-making. Guided by the initial research objectives, this collection of five multifaceted empirical studies contributes across three core areas.

First, by testing the model across different datasets, measurements, and levels of analysis, including firm-level financial data, property-level performance metrics, and business model variations, this study provides empirical evidence that has largely been absent in prior business and hospitality research. The results highlight and systematize the varying effects of customer satisfaction across diverse operational contexts, underscoring the need for tailored analyses at the individual business unit levels. These insights strengthen the theoretical underpinnings of cost and profit driver research within the management accounting literature, contributing to generalizability and theory-building. On the practical side, the findings support managers and analysts in developing informed expectations regarding the nature and magnitude of observed relationships across different data sources, thereby enhancing the rigor and relevance of performance evaluation and decision-making.

Second, this study moves beyond traditional cost-based performance metrics by introducing a novel way to assess operating efficiency relative to customer satisfaction. This instrumental approach integrates accounting and behavioral data, offering a fresh perspective for efficiency research, particularly in hospitality, where service quality plays a fundamental role in financial outcomes. Although better customer satisfaction does not always predict superior financial performance, using this metric as a relative measure can help identify areas for improvement, reduce financial waste, and enhance revenue potential. This was demonstrated empirically using a mixed dataset and practically across two distinct operating contexts: managing the multidimensionality of satisfaction in full-service environments, which significantly contributes to profitability, and optimizing costs in

settings in which improved satisfaction does not yield proportional financial returns. These practical applications were guided by the Experience Accounting (EA) framework, which outlined actionable paths for translating the empirical findings into managerial decision-making, thereby setting the stage for the third key contribution.

The third key contribution is the extension of the Experience Accounting (EA) framework in two important ways: first, from restaurant management to a broader range of hospitality sectors, and second, from traditional survey-based approaches to the use of big data analytics. Together, these developments advance both its methodological applications and theoretical foundations while further promoting the integration of marketing, operational, and financial perspectives in performance management. By demonstrating how marketing data can be systematically prepared and aligned with cost accounting, this research enables a customer-centric approach to resource allocation and managerial decision making. Specifically, it provides practical guidance for aligning operational investments with customer values, ensuring that businesses prioritize value-informed pricing, product design, and performance management. Importantly, by identifying critical customer values embedded within overall satisfaction measures, the EA philosophy helps uncover hidden customer-level profitability drivers in contexts in which the relationship between satisfaction and profit is not immediately evident. Thus, focusing on these value-driving elements enhances profitability through optimized resource allocation while also fostering customer loyalty by delivering high-quality experiences in the areas that matter most.

Through five studies that build on the driver models introduced in Figure 1 (Chapter 1), this research connects traditional accounting frameworks with customer-centric performance management. Figure 1 highlights the predominance of cost-focused and conceptual models in traditional accounting research, with limited empirical integration of customer metrics or cross-level effects. The findings of this thesis directly address these gaps. Chapters 2 and 3 provide multi-level evidence on how customer satisfaction, as an NPFM metric, interacts with price and sales volume to influence profitability and market value, extending beyond the organizational- and product-level focus typical of prior models to the industry level. Chapter 4 extends SCA/SCM models' traditional emphasis on investment in executional drivers, such as technology, and other functional features, by integrating customer satisfaction with accounting-based cost and revenue data. Chapters 5 and 6 operationalize marketing information, such as consumer preferences, through the

Experience Accounting (EA) framework, linking behavioural data to revenue and cost and address existing ambiguities of BSC and APL.

Collectively, these studies add empirical rigor to conceptual accounting models in the lower part of Figure 1 with cross-level modelling and, simultaneously, enrich traditional accounting approaches in the upper part of the figure by integrating customer perspective as a relative measure. Acting beyond the driver models depicted in Figure 1, this work highlights how EA can potentially serve as a unifying platform for multiple analytical approaches to linking customer-centric metrics with financial performance in service-intensive settings. Finally, following the driver circles depicted at the center of Figure 1, the results highlight customer willingness to pay as a decisive profit driver, while empirically showing that other traditionally used cost and revenue drivers may or may not positively contribute to profitability.

Overall, this research deepens our understanding of the satisfaction–profitability relationship in hotel operations, offering both theoretical advancements and practical implications. By redefining customer satisfaction as a measurable and financially significant performance driver, this study provides managers, investors, and policymakers with actionable insights to support strategic decisions that balance customer experience with sustainable financial outcomes.

7.1 General Contribution

This dissertation advances the integration of customer-centric marketing insights into accounting control and financial decision making in the hospitality industry. Drawing on foundational work from NFPM (Banker, Potter, et al., 2000; Ittner & Larcker, 1998a; Said et al., 2003; Srinivasan et al., 2005), SCM (Bromwich, 1990; R. Cooper & Slagmulder, 1998; Govindarajan & Shank, 1992; Roslender & Hart, 2003; Shank & Govindarajan, 1992), and EA (Andersson & Carlbäck, 2009; Carlbäck, 2008, 2010; Nemeschansky, 2020), this study contributes to three interconnected streams: (1) the financial effects of customer satisfaction, (2) the integration of customer metrics into accounting control systems, and (3) customer-centric resource optimization through the Experience Accounting (EA) framework. Across these domains, the findings both validate and challenge prior research, and offer new directions for theory and practice.

Financial Effects of Customer Satisfaction

The relationship between customer satisfaction and financial performance has been a long-standing topic of interest across multiple business disciplines, including marketing (Anderson et al., 1994, 2004; Homburg et al., 2005; Mittal et al., 2023; Niraj et al., 2008), tourism economics (Assaf & Magnini, 2012; Cugini et al., 2007; C. Kim & Chung, 2022), finance (Aksoy et al., 2008; Fornell et al., 2006; Sun & Kim, 2013), and accounting (Ittner & Larcker, 1998a; Terpstra & Verbeeten, 2014). Because empirical findings are fragmented across disciplines and lack instrumental approaches, accounting researchers have called for holistic, multi-level models that align with accounting theory while integrating both financial and nonfinancial performance drivers (Banker et al., 2004; Banker, Potter, et al., 2000; Banker & Johnston, 2007; Farrell et al., 2006; Luft et al., 2011; Luft & Shields, 2003; Shields & Shields, 2005). Specifically, Banker & Johnston (2007) and Shields & Shields (2005) emphasized the importance of cross-level analysis, systematic empirical evidence, and the incorporation of both customer and shareholder value perspectives.

In response to this call, Chapters 2 and 3 addressed one of the central questions in service marketing research: Under what conditions does customer satisfaction translate into financial performance? Chapter 2 focused on a firm-level analysis, modelling the conditional direct and indirect effects of price and satisfaction on the relationship between sales volume and long-term market performance through short-term profitability. Chapter 3 advanced this line of inquiry by refining the model and applying it to property-level data, allowing for greater contextual sensitivity and operational relevance. Together, these chapters offer new insights into the complex, multi-layered relationship between customer satisfaction and financial performance and lay the groundwork for more nuanced, evidence-based approaches to performance management in the hospitality industry. Prior studies have often presented a simplified or linear relationship between satisfaction and profitability (Anderson et al., 1994; Sun & Kim, 2013). The multi-level moderated mediation model deployed in Chapter 2 (Gerdin & Greve, 2008) demonstrates that in the hotel sector the relationship is interactive (Widener, 2006), delayed (Ittner & Larcker, 1998a), and together with price moderates the sales quantity-profitability relationships (Homburg et al., 2005). While satisfaction (ACSI) is positively associated with long-term market value and risk-adjusted returns (Aksoy et al., 2008; Fornell et al., 2006), it does not improve short-term profitability (Niraj et al., 2008), thus validating previous critiques that

warn against over-reliance on nonfinancial performance measures without accounting for timing and context (Penman, 2007b; Said et al., 2003; Widener, 2006). It is therefore important for users of information to have realistic expectations about the absence of apparent immediate effects on profit, while ensuring continuous satisfaction performance, which will repay in future returns. In contrast, price is a positive short-term profit driver but has no effect on long-term performance.

Both chapters explored how customer satisfaction interacts with price and customer traffic to influence financial performance, revealing that the impact of sales volume was not uniform but conditioned by satisfaction levels and pricing strategies. Specifically, with an increase in sales quantity, hotel corporations can maximize customer-level operating profitability at lower customer satisfaction levels, as with an increase in satisfaction rating operating profitability decreases (e.g., Niraj et al., 2008). Additionally, the positive effects of customer traffic are only significant at the operating and stock market performance levels, but not at the accounting level. Further, confirming previous research the analysis indicated differences between high- and low-priced properties (Croes & Semrad, 2012; Enz et al., 2016; O'Neill & Mattila, 2006; van der Rest & Harris, 2008), and different levels of customer satisfaction (Banker, Konstans, et al., 2000; Epstein et al., 2000; C. Kim & Chung, 2022; Kumar et al., 2013; Niraj et al., 2008). Thus, at the firm-level, the indirect effect of sales quantity on long term market performance via operating and accounting profitability was significantly positive at high levels of price and satisfaction (Kumar et al., 2013). However, in the analysis at the property level in Chapter 3, the indirect effect of sales volume on accounting profit EBITDA was significantly positive regardless of the room price and customer satisfaction levels.

As Chapter 3 refines the model at the property level, it also introduces operational nuances by showing that the financial return on satisfaction varies by hotel type and service attributes. This finding challenges the often-assumed universality of the satisfaction-profit link (Mittal et al., 2023) and supports emerging research suggesting diminishing or even negative returns from overinvestment in unappreciated service dimensions in limited-service properties (Bonacchi & Perego, 2023; Busacca & Padula, 2005). By simultaneously positioning basic hotel product (rooms) as a consistent positive value-based profit driver (Andersson & Carlbäck, 2009; Carlbäck, 2010), this finding lays a strong foundation for introducing the application of the EA framework in different hotel types. Chapter 5 analyzes the multidimensionality of customer satisfaction in full-service settings, where overall satisfaction drives price acceptance and profit, and explores elements and categories

of dining experience (Nemeschansky et al., 2020; Pizam & Tasci, 2019). Chapter 6 in turn, focuses on cost cutting initiatives in economy hotels, where demand is more elastic, following an identification and reduction of unappreciated experience categories, together with enhancement of the core basic product and service (Kruesi & Bazelmans, 2023; Nemeschansky, 2020).

One of the most exciting findings of this collective analysis is the significance of customer satisfaction as a performance metric and positive profit driver that is robust to different datasets and measurements. Specifically, the analysis yielded significantly positive results for the ACSI at the firm-level (Aksoy et al., 2008; Fornell et al., 2006; Sun & Kim, 2013) and the average star rating from Internet reviews at the property-level (Ittner & Larcker, 1998a; Srinivasan et al., 2005). Furthermore, the additional post-hoc analysis in Chapter 3 indicated that the introduction of customer satisfaction as an additional metric significantly changed the effects of other profit drivers on profitability. Given the differences in measurements, scope, and nature of data, these findings are fundamental for facilitating the integration of customer satisfaction into the information sets for management control (Assaf & Magnini, 2012; Banker, Potter, et al., 2000; Bonacchi & Perego, 2023; Ittner & Larcker, 1998a; Srinivasan et al., 2005), which is further explored in Chapter 4.

Additionally, the results from both chapters suggest that financial accounting fails to capture the impact of customer satisfaction on profit across mixed-property-type datasets. These effects were mainly observable at the operating and stock market levels of the analysis. Following the aim of understanding the link between satisfaction and financial performance (Banker & Mashruwala, 2007; Homburg et al., 2005; Niraj et al., 2008; Said et al., 2003), this observation sets a clear expectation that current accounting systems cannot identify this relationship and are thus unrealistic to integrate with. In practical terms, managers must develop an understanding of customer-level drivers at different performance levels that are highly business specific and perform operational control together with other profit drivers. At the same time, they need to stay realistic about the inability of accounting information to reflect the economic effects of customer satisfaction, and seek insights from broader long-term analysis.

Importantly, Chapters 2 and 3 collectively address the different types of effects that customer satisfaction exerts on financial outcomes, considering their timing, direction, causality, sign, additivity, directness, and linearity (Shields & Shields, 2005). Moreover, the findings contribute to the development of empirical generalizations regarding customer

satisfaction as a profit driver, demonstrating that its role is both context-dependent and shaped by operational realities (Jääskeläinen et al., 2012; Messner, 2016; Mittal et al., 2023). Understanding and systematizing drivers' behavior and effects at different performance levels (operating, accounting, and stock market) and from different perspectives (firm, property, customer, product) provides a solid basis for conceptual and empirical generalizations. These chapters deepen our understanding of satisfaction as a context-dependent and non-linear performance driver, offering theoretical refinements to both marketing and accounting literature.

Integrating Customer Metrics into Accounting-Based Control Systems

Chapter 4 directly responds to calls in the literature to overcome the disconnect between financial accounting and customer metrics (Banker, Potter, et al., 2000; Bonacchi & Perego, 2023; Bromwich, 1990; Kaplan & Norton, 1996). By applying a two-stage network DEA model, this chapter introduces an actionable framework to measure both cost and revenue efficiency in relation to customer satisfaction. This contributes to strategic cost management research (R. Cooper & Slagmulder, 1998; Govindarajan & Shank, 1992; Roslender & Hart, 2003; Shank & Govindarajan, 1992; Simmonds, 1981) by incorporating behavioral variables into formal control systems, an approach largely absent from traditional accounting models (Akroyd et al., 2023; Andersson & Carlbäck, 2009; Bonacchi & Perego, 2023).

Chapter 4 extends both theoretical and empirical inquiry by examining why it is possible, and how it is practically feasible, to integrate customer satisfaction within an accounting-based control system. This chapter explored how upscale chain hotels incorporate customer satisfaction into their cost and revenue management processes from a customer-centric accounting perspective (Cugini et al., 2007; McManus, 2013; Perera et al., 1997; Terpstra & Verbeeten, 2014). By empirically analyzing the relationships between resource consumption and customer satisfaction, as well as between customer satisfaction and revenue performance, the study revealed how financial and nonfinancial metrics could be meaningfully aligned. As demonstrated in Assaf & Magnini (2012), accounting for customer satisfaction in hotel efficiency analysis changes the efficiency scores obtained from accounting datasets, thus providing a more complete performance evaluation. Building on this previous work, Chapter 4 addresses the second overarching research question: How can customer satisfaction be integrated with accounting key performance

indicators for effective performance management? It demonstrated that customer satisfaction could serve not only as a complementary metric but also as a core element within managerial accounting frameworks. This integration provides a more balanced view of performance—linking resource allocation decisions with customer value delivery and revenue generation.

The findings support earlier research suggesting that customer satisfaction alone is not sufficient for financial success (Gleaves et al., 2008; Kumar et al., 2013; McManus, 2013) yet it is an integral element to achieve it (Anderson et al., 2004; Fornell et al., 2006; Homburg et al., 2005; Niraj et al., 2008). In particular, the chapter identifies that the majority of properties are highly efficient in producing satisfaction from available resources (costs), but fail to convert satisfaction into revenue at the same high efficiency rate. By showing that the primary efficiency gap lies on the revenue side (Anderson et al., 1997; Chiu & Huang, 2011; Hogreve et al., 2017), these results echo the concerns raised in the service-profit chain literature about "leaks" in the value conversion process (Heskett et al., 1994). Simultaneously, the quadrant framework introduced in this chapter offers a novel tool for practice, extending beyond the conceptual models of prior work (Carlbäck, 2010; Cugini et al., 2007) by offering diagnostic clarity at the unit level.

Furthermore, the findings from Chapter 4 lay the foundation for addressing deficiencies in current accounting systems that traditionally overlook customer-level, nonfinancial profit drivers (Banker & Mashruwala, 2007; Bonacchi & Perego, 2023; Epstein et al., 2000; Said et al., 2003). By highlighting how efficiency metrics and satisfaction data can be jointly analyzed, the study builds a foundation for showing the path to how Experience Accounting (EA) principles could be operationalized. After diagnosing areas for improvement (cost or revenue management), EA tools can help to overcome the limitations of conventional control systems. These insights were further developed and tested in Chapters 5 and 6, which collectively examine how this integrated perspective can be scaled, automated, and generalized beyond individual case contexts.

Customer-Centric Resource Optimization Using Experience Accounting (EA)

Chapters 5 and 6 extend the EA framework into operational practice, demonstrating how overwhelming consumer preference information can be used not only to enhance customer experience but also to manage both revenue generation and cost control. The latter comprises cost accounting information to evaluate the consumption of the associated resources, and the revenue management perspective to capitalize on customer preferences

and willingness to pay. Building on the foundational work of earlier chapters, these studies demonstrate how the Experience Accounting (EA) framework can be applied in diverse hospitality contexts to guide operational decisions based on evolving consumer choices and value perceptions. The key contribution of these two studies is the methodological advancements of the EA framework, helping to improve its practicality, achieved in a joint application with other novel methods and automation tools. This systematic EA-driven approach establishes a foundation for an integrated accounting, customer experience, and marketing framework.

The approach taken in Chapter 5 was novel in combining the EA framework with the multi-stakeholder approach of the experiencescape model (Pizam & Tasci, 2019), which was operationalized and applied to cruise dining. Responding to the call of Pizam & Tasci (2019) to integrate multidisciplinary and multi-stakeholder perspectives on experiencescape research, both approaches were advanced on a set of big data obtained from the Internet, a source that is more practical for regularly tracking consumer preferences than traditional customer surveys and focus groups.

As a result, the study and its analytical approach make an important contribution to the management of food service experiencescapes in general, and cruise dining in particular. Following Bitner's (1992) and Pizam & Tasci's (2019) models built on the S-O-R paradigm (Mehrabian & Russell, 1974), the study subcategorized the Sensory component of the experiencescape into basic food and culinary finesse, as recommended by the EA analytical framework (Andersson & Carlbäck, 2009; Carlbäck, 2010). The study contributes to the literature on the cruise dining experiencescape (Han et al., 2020; Radic, 2018, 2019; Radić et al., 2019; Radic et al., 2021) by suggesting a more detailed and food-service-relevant approach to experiencescape analysis. Specifically, matching the components of experiencescape to the experience accounts of the EA framework enabled the further inclusion of these components into accounting and finance perspectives.

Therefore, the study in Chapter 5 opened new avenues for analyzing the restaurant atmosphere in a more structured way that can provide clear management guidance, not least in multiple F&B setups, such as cruises or resorts. Similar to Kwortnik (2008) cruise shipscape, the dining atmosphere was treated as a blend of sensory (ambient), functional (design), and social components. However, in the cruise multisensory F&B landscape sought to stimulate consumer spending, the further inclusion of natural, cultural, and hospitality culture components in an applicable multi-stakeholder model, as suggested by

Pizam & Tasci (2019), and the analysis of their importance-performance scores could be beneficial.

The approach taken in Chapter 6 combined the EA framework with supervised machine learning algorithms to conduct benefit segmentation and analyze the amenity preferences of guests in economy hotels. Beyond the combination of the two methods, the novelty was in the development of an EA-based decision chart for low-cost accommodations, such as Airbnb and economy hotels, extending EA from restaurant management to additional sectors. This application confirmed the view that not all service elements are equally valued (Zervas et al., 2017; Hwang & Han, 2014) and demonstrated that cost savings can be achieved without negatively impacting the guest experience, contrary to the traditional view that service cuts necessarily erode satisfaction. This evidence challenges blanket approaches to cost reduction and offers a more refined method for value-informed operational trade-offs.

Chapter 6 directly addressed how EA can be used to optimize costs and tailor offerings in alignment with customer preferences. Focusing on the economy hotel segment, the chapter developed a resource optimization approach based on ranking the perceived importance of various amenities among different types of vacation travelers. By quantifying what mattered most to different customer segments, this study demonstrated how EA could guide value-informed cost-reduction strategies without compromising guest satisfaction. The deployment of machine learning algorithms on structured survey data highlights the possibility of the automation of consumer preference analytics with high precision, thus providing reliable guidance. It showed that aligning operational decisions with customer-defined priorities enables a more efficient allocation of limited resources, thus bridging the gap between cost control and experience design.

Together, Chapters 5 and 6 illustrated how EA can be operationalized to manage both the revenue and cost sides of the profit equation in hospitality settings. By translating both structured and unstructured customer data into financially meaningful insights, this research advances prior work on integrating customer experience with accounting (Zinkhan & Verbrugge, 2000; Ittner & Larcker, 2003), and offers tools for embedding customer preferences into daily decision-making processes. They provided empirical evidence on how customer preferences can become instrumental variables in managerial decision making by transforming satisfaction and experiential data into strategic levers for performance optimization. These contributions further reinforce EA's potential as a

unifying platform for integrating customer-centric thinking into financial and operational control systems.

Across all three research streams, this thesis validates and advances the theoretical foundations of customer-centric performance management. This confirms that customer satisfaction can be a powerful financial lever—but only when its effects and dimensions are understood in context, integrated with financial controls, and translated into strategic and operational action. The Experience Accounting (EA) framework has emerged as a unifying platform for this integration, offering a structured, data-driven, and practically applicable approach to connecting customer value with sustainable financial performance in service-intensive industries.

7.2 Practical Implications

This research builds a foundation for offering a structured framework for translating customer insights into financially actionable guidance for hospitality professionals. This helps identify where to invest, where to save, and how to tie day-to-day operations more directly to customer value and profit. The EA approach is a decision-making platform that can be implemented cost-effectively using existing data sources, such as surveys, online reviews, and accounting transactions, scaled across departments or properties. It can be developed into dashboards, alerts, and scenario planning tools, or integrated into existing decision-support- or ERP[30] systems. As demonstrated across the empirical chapters, the EA framework offers a theoretically grounded and methodologically adaptable approach to embedding customer-centric insights into the financial and operational management of hospitality operations.

To help the reader better understand how data are currently organized within a service enterprise, Figure 19 illustrates how information is typically separated across three core departments: Finance, Operations, and Customer Experience. This structure tends to persist regardless of the size or scope of the business, and, consequently, how data are currently handled. The bullets under each silo are based on examples from an owner-led small business, where much of the data is stored in the owner's head, and from an average enterprise with dedicated departments, each using its own software systems.

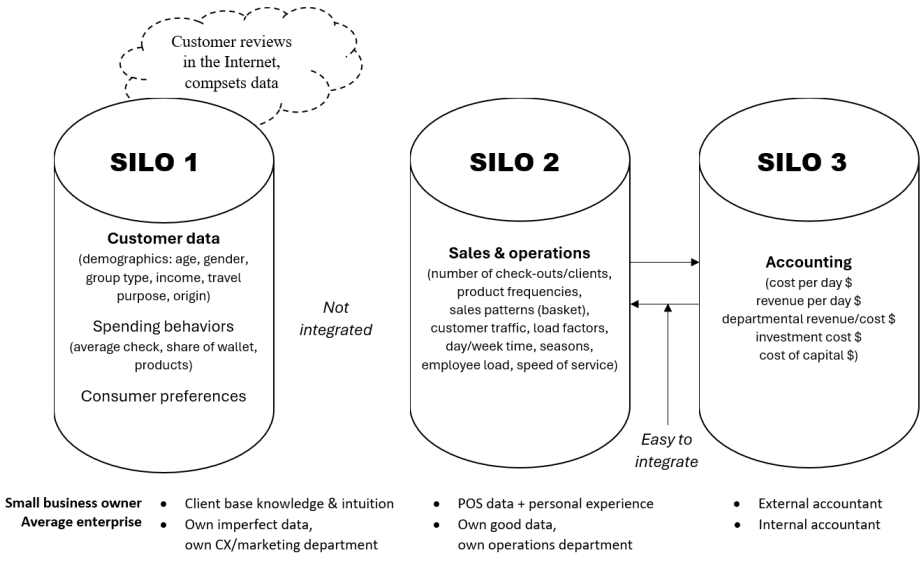
The silos in the figure show how data are stored, managed, and organized, often in isolation, limiting their potential for cross-functional use. Integration between accounting

[30] ERP - Enterprise Resource Planning

(Silo 3) and operations (Silo 2) is typically well established and forms the backbone of many dashboards and decision support tools in practice. This combination—monetary data from financial accounting and operational data measured through transactions, time, and outputs—is commonly handled by the management accounting function.

By contrast, customer experience (CX) data remain largely disconnected: qualitative, underutilized, and rarely linked to financial or operational systems. A key opportunity to connect Silo 1 (CX) with Silo 2 (Operations) lies in customer demographics, which due to their quantitative nature can help bridge the gap between customer insights and operational data. Moreover, patterns can be discovered by analyzing consumer reviews of the competitive sets of firms, available from the Internet, thus compensating for deficiencies in the proprietary CX datasets. Using EA as a platform to integrate CX data, either broadly or deeply, with operations, and subsequently with finance, gives management accounting a unique opportunity to broaden its perspective and assume a more strategic role in business decision-making. It also enables fundamental collaboration between management accounting and customer experience, paving the way for a long-envisioned interface between marketing and finance.

Figure 19: Departmental data silos and integration opportunities



Customer-centric information in financial decisions

Moving beyond generic benchmarks and fragmented departmental information, this research shows how customer satisfaction can be used to guide and assess financial outcomes, inform pricing and resource allocation, and improve performance evaluation at the unit level through a data-driven, context-sensitive approach.

First, the findings emphasize the importance of tailored analyses at the individual business unit levels. Given the variation in how customer satisfaction affects profitability across units of analysis, property types, service models, and market segments, managers are encouraged to assess their operations using historical accounting and real-time customer-level insights. This enables more accurate forecasting, better investment decisions, and a clearer understanding of how customer satisfaction (or which of its attributes) drives financial outcomes in their specific contexts.

Second, integrating satisfaction data into dynamic pricing strategies can enhance both revenue and customer retention. By understanding how satisfaction interacts with price (sensitivity) and customer traffic, managers can design price structures that maximize revenue without eroding the perceived value. This is especially critical in competitive markets, where price-driven demand alone is insufficient to sustain profitability.

Third, users of information must develop realistic expectations regarding the timing of satisfaction-related returns and the integrative ability of data at different performance levels. Although customer satisfaction is positively linked to long-term market value, its effects on short-term profitability may be limited or delayed. This calls, on the one hand, for patience and long-term orientation in performance management, and, on the other hand, for a clear set of business-specific metrics that indicate performance along the milestones. The inability of accounting data and systems to capture this lag means that a) the controlling focus must be set at the operating performance level and b) the effects can be sought in historical, broad-scoped corporate information. To facilitate this process, managers need a clear understanding of focus areas to sustain and enhance service excellence as well as the causal link between satisfaction and revenue or profit. The same specific knowledge will support financial analysts in improving the quality of their forecasts while considering satisfaction performance as an equal earnings predictor.

Together, these implications facilitate a shift towards evidence-based, customer-centric decision-making. Managers equipped with knowledge about the profit-driver effects of customer satisfaction in their specific business are encouraged to develop an

understanding of experiences that matter most to guests, how investment in those experiences affects profitability, and how to adjust operations accordingly. The result is a more agile, accountable, and financially sustainable approach to hospitality management and investment decisions.

Finally, policy makers should pay closer attention to customer-related data in business reporting and recommend the inclusion of certain customer-level metrics. For instance, per-customer data are readily available in POS systems; however, they are not reported and are thus unavailable. Understanding per-customer performance, such as length of stay or daily spent, combined with satisfaction levels, will improve the quality of analysis in the banking, investment, or fiscal domains. Importantly, setting reporting trends for large corporations will support industry and education by improving management and analytical standards.

Integration of customer and accounting information

Customer satisfaction can be instrumentalized as a relative efficiency metric. When combined with cost and revenue data, satisfaction scores can help identify areas of underperformance or overinvestment, thereby reducing financial waste and maximizing revenue. This is relevant in full-service hospitality environments, where satisfaction has a stronger association with pricing power and guest loyalty, and in limited-service properties, where only selected satisfaction attributes yield financial results. The use of satisfaction-based efficiency metrics, such as those developed in this dissertation, offers a structured method for prioritizing operational improvements that deliver the highest returns.

The two-stage DEA approach, applied to customer satisfaction, helps identify efficiency gaps. In most cases, these gaps appear in the conversion of customer satisfaction into revenue, which traditional performance evaluation tools do not capture. Specifically, a hotel may have a rather high overall efficiency, yet the two-stage approach can uncover confounding patterns (low cost-to-satisfaction, high satisfaction-to-revenue, or vice versa) or highlight areas of unrealized potential, most often within the satisfaction-to-revenue link. In the practical terms, this means that a hotel with low C-S and high S-R efficiency produces low satisfaction relative to its cost. Despite generating the maximum possible revenue relative to the current satisfaction levels, such a property is unlikely to sustain long-term profitability. In this case, the focus is on the cost-to-satisfaction aspect; in other words, satisfaction should be improved while maintaining current cost levels. Conversely, in the case of low satisfaction-to-revenue efficiency, customers are willing to spend more at the

property relative to competitors and current satisfaction levels. Therefore, additional amenity offerings or more targeted marketing may tap into this willingness to pay and help generate incremental revenue. As this type of analysis is typically conducted relative to competitors, it provides a more comprehensive performance evaluation, offering operators clearer guidance on where efficiency gains can be maximized.

Less technical than DEA, the Experience Accounting (EA) framework provides a comprehensive approach for aligning customer preferences with cost and revenue information. As demonstrated in Chapters 5 and 6, EA is a managerial mindset centered on key customer values and preferences. Moreover, EA incorporates the multidimensionality of customer satisfaction by assigning importance-performance scores to distinct experience accounts, thereby helping to define the most critical elements of customer experience. While the application of EA may require more strategic and imaginative thinking, the framework is particularly well suited for users with low mathematical affinity or without access to the analytical resources necessary for more sophisticated evaluations. For companies with extensive analytical capabilities, EA, offers a structured method for integrating marketing and accounting data to build a comprehensive, customer-centric view of the business.

Thus, all types of users can deploy EA to align operational decisions with customer-defined priorities and enable more efficient allocation of limited resources, as well as prioritize investments in service areas that contribute the most to perceived value and revenue potential. Without investment in expensive software, the EA approach helps bridge the gap between cost control and experience design, customer value delivery and revenue generation, meaningfully aligning financial and nonfinancial metrics.

Accounting treatments and systems for EA applications

Traditional accounting systems are primarily designed to record financial transactions and monitor operational efficiency, but they often lack the capacity to incorporate nonfinancial customer-level drivers. This gap is particularly evident in service intense industries, where customer experience directly influences both cost structures and revenue generation. The EA framework offers an approach to addressing this limitation by linking customer preferences with cost and revenue information. For example, EA enables value-informed cost reduction by ranking the perceived importance of experience elements among different customer segments, allowing managers to reduce spending without compromising on guest satisfaction. Furthermore, EA offers a strong platform for information exchange between accounting and marketing functions, supporting integrated decision-making that aligns

financial goals with customer-centric strategies. This interface allows for more targeted resource allocation, better alignment with customer value, and improved interpretation of financial outcomes, especially in contexts where guest experience is a primary driver of profitability. To date, EA lacks methodological advancements, and its application has mainly been studied in restaurant settings.

This thesis, particularly Chapters 3,4, and 5 demonstrate how the deployment of big data can facilitate the alignment of marketing insights with cost accounting structures, thereby improving the utilization of diverse data sources for forecasting and operational planning. Chapter 6, while using traditional survey data, contributes by showing how machine learning helps handle and interpret multidimensional customer segmentation with relative ease and high precision. That said, the accessibility, measurability, standardization, and systematic approach to nonfinancial, customer-level data will remain critical for the further development of integrated marketing-accounting systems, such as EA or BSC. Simultaneously, the growing availability of big data and automated analytical tools is likely to accelerate the advancement and practical adoption of such systems.

In the past, revenue managers might have relied on phone calls to monitor competitors' pricing; today, web crawlers collect global pricing data in real time. A similar approach can be applied to the integration of customer insights into information systems, provided that a solid analytical foundation, such as that offered by EA or other structured methodologies, is in place. To enhance customer-centric performance management, a GPT-based module can be integrated into the Experience Accounting system to analyze large volumes of unstructured data from online reviews, social media, and guest feedback. Natural language processing (NLP) is used to extract and classify evolving customer values, preferences, and concerns in real time. These insights can be segmented into customer demographics, destinations, seasons, and product types, enabling businesses to identify differentiated value drivers across market segments. When linked to cost centers, revenue streams, and key financial metrics within the accounting system, this information supports a more nuanced interpretation of operational performance. For instance, declining sentiment around a specific amenity among a high-value customer group can be flagged for managerial attention and tied to corresponding financial indicators such as margin erosion or reduced spending per guest. By integrating these insights into dashboards and control systems, businesses can align customer expectations with resource allocation, forecast demand more accurately, and track the returns on experience over time. This

approach bridges the gap between marketing insights and financial controls by converting real-time customer feedback into actionable accounting intelligence.

Furthermore, Experience Accounting (EA) can be effectively integrated with other contemporary accounting innovations to create a holistic customer-centric performance management system. For example, when combined with ABC, EA can help refine cost attribution by linking customer-valued activities with precise resource consumption, allowing managers to identify the cost of specific services that are most valued by key customer segments. Similarly, EA complements the BSC by operationalizing the customer perspective through granular satisfaction-performance metrics that are directly tied to financial outcomes. EA can also enhance Strategic Management Accounting (SMA) practices by providing real-time customer insights that inform competitor benchmarking, pricing strategies, and market positioning. In environments that leverage big data analytics or predictive modelling, EA adds interpretive depth by identifying why certain services impact financial results, not just how. Together, these tools can complement each other and allow firms to move beyond traditional cost control towards value-informed decision-making, where accounting systems reflect both operational efficiency and customer-defined value creation.

EA also strengthens the development and application of the Balanced Scorecard by enriching customer and internal process perspectives with data-driven experience metrics. By combining financial and nonfinancial indicators, EA supports a more comprehensive scorecard that reflects not only what the company earns but also how and why it earns it from the customer's point of view. This helps to bridge the common disconnect between financial performance reporting and customer experience strategies. Most importantly, the integration of EA with frameworks such as the BSC promotes strategic alignment across departments. Marketing initiatives become more accountable for financial viability, while accounting practices expand to incorporate customer-centric metrics. This mutual reinforcement ensures that all aspects of performance—financial, operational, and experiential—are measured and managed in concert, advancing a holistic view of value creation and long-term organizational sustainability.

In addition to enhancing cost accuracy and customer insight, EA can contribute to continuous performance monitoring by establishing a dynamic interface between the accounting and marketing systems. This integration enables organizations to track both financial outcomes and customer satisfaction in real time, creating a dual feedback loop that ensures alignment with strategic goals. For example, changes in customer sentiment

can be monitored alongside financial KPIs such as cost per guest or total revenue per available room, allowing for faster and, more informed operational adjustments.

In overall, this dissertation suggests EA as a flexible and scalable solution for aligning financial decisions with customer-defined values across business models, data environments, and service levels.

7.3. Social Significance

The hospitality and tourism industry is a cornerstone of global economic, social, and environmental systems. It is often a major employer, providing millions of jobs across a spectrum of roles, from front-line services to executive leadership, while contributing substantially to GDP through tourism, business travel, and local visitor spending. By shaping the destination image, it also fosters cultural exchange and community development by bringing people from diverse backgrounds together and supporting infrastructure, local entrepreneurship, and heritage preservation. This dissertation aims to support this economic and social foundation by offering new methods for understanding how customer satisfaction is linked to profitability, helping business owners make better-informed decisions that sustain employment, revenue, and local impacts.

The hospitality sector remains deeply conservative and operationally driven, often led by entrepreneurs and hosts who work long hours and have limited access to formal business education or strategic management tools. Although dedicated and essential, this passionate workforce is frequently disconnected from the broader goals of financial sustainability. Many decision-makers in the industry lack the skills, time, or resources to engage in complex strategic planning, despite their critical role in local economies and global tourism. The tools and models developed in this research are designed specifically to support these hosts by translating complex intangible marketing data into simple, actionable insights that align operations with financial outcomes.

The consequences of business failure in this context are not merely financial; they are deeply human. When a hospitality business fails, it can lead to the collapse of a family livelihood, the loss of employment for an entire team, and a breakdown in the social fabric of a community. In small towns and tourist-dependent regions, such failures reverberate through local supply chains, reduce public investment, and diminish cultural and environmental stewardships. For overworked owners with limited support, business failure is not just a setback; it is also a personal crisis. By uncovering the conditions under which customer satisfaction is a profit driver or financial waste, this research empowers hosts to

avoid costly misallocations, reduce financial waste, and make data-supported trade-offs that increase their likelihood of success.

There are many reasons for optimism in the hospitality industry, and it has always been a source of joy, connection, and creative innovation. Hospitality enhances the quality of life by offering guests meaningful experiences, relaxation, and leisure, thus contributing to well-being, happiness, and cultural enrichment. The industry is undergoing a quiet revolution driven by the adoption of new technologies, such as integrated data analytics, artificial intelligence, and smart devices, which are transforming how businesses operate, serve, and grow. Growing individualization and customization trends foster accessibility across price classes and preferences, ensuring that more people can afford, participate, and benefit from these experiences. This research contributes to this transformation by demonstrating how customer insights can be accessed, automated, and converted into financial and operational guidance. In doing so, it offers a bridge between tradition and innovation, helping hospitality professionals build smarter, more resilient, and financially rewarding businesses.

With the growing importance of environmental responsibility, many businesses are adopting sustainable tourism practices, such as reducing waste, conserving water, and using renewable energy, to support conservation efforts that protect natural ecosystems. However, the successful implementation of these initiatives, including customers' willingness to pay, often depends on clear, accessible tools that translate day-to-day operations into measurable outcomes. By integrating customer values as measurable behavioral outcomes with accounting information, this dissertation helps hospitality operators identify where sustainability efforts are most valued by customers and are most likely to contribute to profitability, thus supporting both environmental stewardship and economic sustainability.

7.4 Limitations of the Research

While this thesis offers a significant contribution to the understanding of the financial impact of customer satisfaction, several limitations must be acknowledged. One of the primary constraints is the data availability and granularity. This research relies on publicly available financial data, property-level accounting records, and online customer reviews, yet these datasets have inherent shortcomings. Corporate financial data are often aggregated, making it difficult to distinguish between the precise effects of customer satisfaction at the property level. Additionally, customer satisfaction scores, such as ACSI, do not differentiate between franchised and corporate-owned properties, despite potential

variations in service quality. Moreover, revenue and expense data are too generalized to capture the finer details of pricing strategies, service models, and customer segmentation. The reliance on text-mining techniques to analyze customer sentiment also introduces potential biases, as consumer feedback may be influenced by external factors unrelated to service quality. Future research could benefit from integrating proprietary, high-frequency transactional data to establish a more precise link between customer behavior and financial performance.

Furthermore, working with diverse datasets resulted in the use of multiple profitability measurements, as dictated by the availability of information at different analytical stages. While this multi-metric approach enriched the analysis by revealing how relationships vary across measurement perspectives and contexts, it also introduced potential inconsistencies between indicators. Similarly, the set of control variables is relatively limited compared with prior hotel finance studies, which often include broader, context-specific controls. These choices constituted necessary delimitations, consistent with the exploratory design, the complexity of the cross-level models, and the objective of drawing maximal insight from the available data. Now that this dissertation has provided an initial exploration and mapping of these relationships, future research can refine the measurement framework and expand the set of control variables to enhance methodological rigor, precision, and comparability across different settings.

From a methodological perspective, this study employs a combination of moderated mediation models, DEA efficiency analysis, and machine learning algorithms, each with its own set of limitations. The assumption of linear relationships in regression models may oversimplify the complex and dynamic interplay among pricing, customer satisfaction, and long-term profitability. Similarly, DEA efficiency models require homogeneous samples in terms of DMU's characteristics, which can be challenging given the varying cost structures of full-service and limited-service hotels. While machine-learning models are powerful, a rather small dataset used in this study may limit the model performance generalizability of the findings. Additionally, this thesis assumes a unidirectional relationship between customer satisfaction and financial performance, whereas reverse causality, where financial success leads to better service investments, should also be explored. Addressing these methodological challenges through hybrid modelling techniques, longitudinal data, and dynamic pricing simulations could strengthen future research in this domain.

The scope and generalizability of this research also present limitations. The study focuses on corporate hotel chains in upscale lodging, cruise dining, and economy accommodation, meaning that the findings may not fully extend to independent hotels, other service industries, or global markets with different consumer behaviors. Additionally, most data originate from publicly traded U.S. companies and European customer reviews, leaving gaps in understanding how cultural and regional factors influence the relationship between satisfaction and profitability. Service industries such as airlines, healthcare, and retail also operate under different business models that may require tailored approaches to integrate customer satisfaction into financial decision-making. Expanding future studies to include independent businesses, emerging markets, and cross-industry comparisons would improve the applicability of these findings.

Despite introducing Experience Accounting (EA) as a novel framework, further development is needed to enhance its instrumental and predictive capabilities. This thesis primarily takes an accounting perspective, integrating customer-centric insights, but it could benefit from broader behavioral economics and marketing theories to deepen its explanatory power. Additionally, while research explores how customer satisfaction influences financial performance, it does not fully address the dynamic interactions between price sensitivity, perceived value, and service quality. Future research should investigate real-time decision-support tools that integrate AI-driven customer feedback, pricing optimization, and cost control strategies. By advancing the EA framework into a real-time, automated financial decision system, businesses can maximize the profitability of customer-driven revenue streams while maintaining financial discipline.

7.5 Directions for Future Research

This research has laid a strong foundation for integrating customer satisfaction into financial and managerial decision-making, yet several avenues remain for future exploration. First, expanding the scope of the data collection would enhance the robustness of the findings. While this study primarily used public corporate and property-level financial data, future research could benefit from more detailed datasets including point-of-sale transactions, proprietary customer databases, and real-time service performance metrics. Such data would allow for a more granular analysis of how customer interactions translate into financial performance, across different service models and business structures. Additionally, extending the analysis to independent hotels, emerging markets, and industries beyond hospitality would provide broader insights into the generalizability of the satisfaction-profitability link. A key methodological enhancement could involve

hybrid machine learning techniques and deep learning algorithms to capture the complexity of multiple nonlinear and dynamic relationships between customer perceptions, pricing strategies, and profitability.

From a modelling and theoretical perspective, future studies should investigate the interactive effects between pricing, customer satisfaction, and traffic to refine the profitability models. The assumed additive effects in this study could be extended by exploring potential interaction terms to help businesses identify the optimal balance between pricing strategies and service enhancements. Furthermore, testing for reverse causality, in which financial success enables better service investments, could provide a more dynamic understanding of how firms can sustainably reinvest profits in customer experience improvements. In terms of decision-support applications, Experience Accounting (EA) could be further developed into an AI-driven, real-time financial decision-making tool capable of integrating customer feedback, pricing optimization, and resource allocation strategies. Additionally, applying EA in cruise operations and budget accommodations has demonstrated its flexibility, however, future research could refine industry-specific models for sectors such as healthcare, retail, and airlines, further bridging marketing, accounting, and financial performance frameworks.