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Kedwadee Sombultawee , Sakun Boon-itt

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Marketing-Operations Alignment: A Review of the Literature and Theoretical

Background

Kedwadee Sombultawee (kedwadee_so@hotmail.com<mailto:kedwadee_so@hotmail.com>)

Faculty of Management Science Silpakorn University, THAILAND

Associate Professor Sakun Boon-itt, Ph.D. (sboonitt@tu.ac.th<mailto:sboonitt@tu.ac.th>)

Department of Operations Management Thammasat Business School, THAILAND

Abstract

The purpose of this paper is to consolidate existing knowledge and theories on marketing-operations alignment and theoretical background for this organizational alignment. The research used a qualitative literature review approach to identify key contributions to this area and incorporate them into theoretical background. Marketing-operations alignment, or organizational alignment between the marketing and operations functions of the firm, takes place at multiple levels (operational, tactical, and strategic). The literature reveals that the topic of operations alignment is a broad topic, spread across multiple journals and fields. Furthermore, there is no single dominant theory of alignment that can be applied. There is also substantial overlap with concepts of operational integration and coordination. The theoretical background uses configuration theory to model the fit of marketing and operations intelligence and decision-making at three points of interaction between these two functions.

Keywords: OR in marketing, alignment, configuration theory, marketing strategy, operations strategy

1. Introduction

One of the main problems of operational research is the concept of alignment between the functional units of the firm. The concept of alignment itself is problematic, as it is often

poorly defined or inconsistent and can be difficult to operationalize (Gerow 2011). In general, alignment between the firm's functional units can be defined as the coordination or fit of strategic goals, structures, and tactics of different units of the firm with each other (Nadler & Tushman 1983; Palmer 2007; Rosemann & vom Brocke 2015). However, alignment can be viewed in different ways, including as a strategic problem (Nadler & Tushman 1983; Henderson & Venkatraman 1999; Ullah & Lai 2013), a process problem (Rosemann & vom Brocke 2015) or a capability utilization problem (Taxén 2010). This has created a situation where there is no single dominant framework of organizational alignment. This research follows the definition of Nadler and Tushman (1983), arguing that organizational alignment can be defined as the extent to which the strategies, processes, and capabilities of one functional unit within an organization are consistent with the strategies, processes and capabilities of one or more other functional units, in order to enable the firm to act consistently and fully utilize its available resources. Organizational alignment can be a critical competitive advantage for the firm, allowing the firm to be more responsive to changing conditions and utilize resources more effectively (Huang et al. 2010; Powell 1992). It has also been shown to result in improved financial performance (Wu, Straub & Liang 2015).

The purpose of this research is to consolidate existing knowledge and theories on organizational alignment and to propose a theoretical background for this organizational alignment interface. Alignment (or coordination) between the marketing and operational functional units of the firm has been the subject of multiple studies on organizational alignment and coordination (both horizontal and vertical) (Calantone, et al., 2002; Eliashberg & Steinberg, 1987; Eliashberg & Steinberg, 1993; Hausman & Montgomery, 1993; Hayes & Wheelwright, 1979; Karmarkar, 1996; Lawrence & Lorsch, 1967; Lee & Kim, 1993; Malhotra & Sharma, 2002; Piercy Rich, 2004; Shapiro, 1977; Skinner, 1974). However, there is still considerable weakness in empirical evidence for functional unit coordination or

alignment (Dixon et al. 2014; Marques et al. 2014). This weakness is exacerbated by lack of a single, clear conceptualization of relationships between functional units (Piercy, 2007; Piercy, 2010). The research gap that has been identified shows that while there is a discussion on a variety of topics in marketing and operations, there is a lack of research which shows how the two highly important aspects of business are linked. Operations management and marketing are still considered in silos in academic research. This research is expected to provide theoretical grounding that businesses can use in aligning their core functions of operations and marketing. While there has been a lot of discussion on how academic research has not been able to serve a practical purpose in the business field, research indicating how operations and marketing can be aligned can prove to be useful. Marketing strategies can be effective only when the company has resources that can match the promises that companies make to customers through their marketing campaigns (Bennis & O'Toole 2005). When the back-end of the company is connected with the front-end, a company will be able to deliver on its promises (Christopher 2016). In order for this connectivity to happen goals and objective of the two aspects of business need to be aligned (Calantone, Dröge & Vickery 2002). The research gap, which is present due to the lack of research on how marketing and operations are linked, when identified and fulfilled here can enable the gap in academia and business to be decreased, and this is where the paper will serve its purpose of adding value to current research. It will add to practice by identifying how important alignment of operations and marketing is, and will propose recommendations that can prove to be helpful to industry and management.

The objectives of this research include reviewing the literature to clarify a potential theoretical background and to set out the current state of research on marketing-operations alignment. The choice to focus on marketing and operations functional units is due to the preponderance of the literature, and the relative importance of these units in the firm's operations.

Marketing-operations alignment has clear implications for market-oriented firms, which unlike earlier, mass production firms, must be able to meet customer's needs rather than finding a customer base that needs their products (Kotler & Keller 2012). Organizational alignment has long been recognised as a source of competitive advantage for the firm (Porter, 1985; Powell, 1992). This research can help other researchers more clearly conceptualize the problem at hand and identify areas for further study.

The structure that this paper follows is based primarily on the literature review. The research process, described in the following section discusses how the qualitative literature review was conducted for this paper. The literature review section follows this research process description, where different findings are discussed thematically. The theoretical background is then developed, followed by conclusions and recommendations based on the findings of the literature review.

2. Research Process

The research was conducted as a qualitative literature review. Key terms were identified and searches were conducted across the electronic journal databases: Elsevier ScienceDirect, IngentaConnect, JSTOR, and Emerald. A search on Google Scholar was also included, in order to capture independent journals and those that were not indexed by the main sources. Sources from non-peer reviewed sources were excluded as information sources, except in cases where these sources were seminal (widely used by other authors).

A decision on using search keywords was made through several steps. The central concept in this research is that of marketing and operations alignment. This term was searched for and several articles came up that were relevant and yet needed to be defined more. In addition to this, the key term of marketing and operations can be broadly categorized as functions,

therefore, cross-functional integration was the next term that the researchers looked for. As functions are part of the intra firm environment, the term intrafirm was used in two forms; intrafirm, and intra-firm, to look for relevant information that might appear in the relatively broader search term. In addition to this, alignment has several synonyms, where the closest match is with coordination and integration, which is why these terms were combined with the central words. However, the search did not yield many substantial results, therefore, expert feedback was taken, and additional keywords that were searched for were included in the list with regards to the topic. The final list of keywords is as given below.

Marketing-operations alignment	Intrafirm coordination
Marketing-operations coordination	Intrafirm alignment
Horizontal alignment	Configuration theory
Horizontal coordination	Cross-functional integration

Table 1 List of keywords

While a date range was not applied, in order to capture the full development of the concept, in practice most articles date to 1997 or later, marking the beginning of the concept. The initial review showed that the literature on marketing-operations alignment and related concepts is highly diffuse and not limited to specific journals. Thus, papers were included assuming that they met the peer-reviewed criterion and key term search requirements, and were relevant to the research topic and not using coincidental terminology (for example, either with a different meaning or with a different use).

Initially, a total of 163 articles were identified using the search parameters. Following the elimination of coincidental or overlapping terminology, non-peer reviewed work, book

reviews, and other unsuitable works, a total of 73 works were included. The trends in these works are summarised in Table 6 (Appendix). As this shows, coverage is sparse by year, particularly before 1993. The topic of alignment or related topics is most generally discussed as general management theory or strategy question, although it is also commonly discussed under operations management and research and marketing areas. The most prolific journal was Journal of Operations Management, but there was a wide range of journals. This pattern suggests a persistent low-level interest over time, but few real trends that indicate growing interest following the 1990s.

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The literature review summary table is as shown in the appendix. 73 journal articles and other sources (books, dissertations, etc.) have been considered based on keyword searches. These searches were carried out by putting in the query in the search bar of multiple scholarly databases and then sorting the studies in accordance to relevance in the database. Although algorithms in databases can be helpful and accurate, the top 50 titles of each of the searches were considered. Once this was done, the shortlisted articles' abstracts were read to determine which papers would be evaluated. The table shows the bibliography details, the name of the journal, the discipline that the paper is from, the area of focus, and whether this was relevant for use in the current research. Relevance strength was determined by factors including focus on the alignment concept, extent to which this concept was discussed, and acceptance in later literature. For example, studies that presented a comprehensive and integrated model of alignment (regardless of the model chosen), where alignment was the main focus of the paper, and which was cited in later literature were identified as strong relevance. Studies which had preliminary or loosely descriptive alignment models, which incorporated alignment with other factors, or which were not as widely cited were identified as moderate relevance. Studies that presented alignment as a concept but did not discuss it or use a formal conceptual model, that addressed alignment only in passing, or that were not cited later were classified as weakly relevant.

3. Literature Review

3.1. Definition and measurement of marketing-operations alignment

One of the problems of marketing-operations alignment is arriving at a useful operational definition. Alignment as a concept is an ambiguous and multidimensional concept, which has been defined in several different ways (Tang 2010). Table 2 summarises some of the conflicting terms that have been used with the same concept, demonstrating that

there is are a number of overlapping concepts. These are not the only definitions available, but are sample definitions that most clearly state the characteristics of the core concept. Commonly, alignment is viewed as a long-term planning and cross-functional integration activity, spanning three levels of organisational activity (strategic, tactical, and operational) (Oliva & Watson 2011). In many definitions, there is a concept of integration and interdependence between the functional units, encouraging cooperation (Hausman, Montgomery, & Roth, 2002; Malhotra & Sharma, 2002; Gattiker, 2007; Piercy, 2007). Definitions vary in terms of how they understand alignment depending on these levels; for example, “On the tactical level, individual characteristics are not at the centre of the interaction, while individual and functional integrations are in the spotlight at the strategic level (Paiva 2010, p. 380).” Definitions also vary in their focus on individual unit responsibilities (Erickson 2012) or joint responsibilities (Paiva 2010). Along with alignment generally, there are also varying definitions of marketing-operations alignment (Table 3). These definitions typically address the interconnection of different units, using terms such as *collaboration*, *interdependency*, or *strategic coordination*. Thus, while these definitions do vary, there is a shared perspective on the type of interactions that fall under the concept of alignment. The operational definition of marketing-operations alignment used in this research, following several previous definitions and incorporating their differences in perspective (Erickson, 2012; Gattiker, 2007; Hausman, et al., 2002; Malhotra & Sharma, 2002; Paiva, 2010; Piercy, 2007), and incorporating Parente’s (1999) concept of the field of interaction at strategic, tactical, and operational levels, is: *The extent to which the operations, tactics and strategies of the marketing and operations units within an organization are consistent and the extent to which the marketing and operations units work together to implement strategies.*

Term	Source	Sample Definition	Difference from Alignment
Integration	Weir, Kochlar, LeBeau and Edgeley (2000)	Use of strategic goals to drive firm processes and activities (vertical integration) and integration of business unit activities (horizontal integration).	Incorporates shared functions and processes between business units, not just shared goals
Interface	Parente (1999)	A system communications and feedback between two functions within an organisation at the operational, tactical and strategic level, enabling coordinated action.	Relates to the internal system's function rather than strategic alignment.
Coordination	Narver and Slater (1990, p. 22)	"The coordinated utilisation of company resources in creating superior value for target customers." Coordination relates to use of resources in the same direction without replication.	Does not relate specifically to the alignment of units either horizontally or vertically.
Fit	Henderson and Venkatraman (1999)	The extent to which the strategies and processes of one unit are consistent with those of another, and can work together to accomplish the intended goals.	Very similar in intent and orientation.

Table 2 Terms related to alignment in the academic literature and sample definitions

Definition of marketing and operations alignment	Source
“... the ability of manufacturing and marketing to work together in strategy implementation”	Hausman, et al. (2002, p. 242)
“Alignment between the marketing and operations strategy”	Malhotra and Sharma (2002, p. 215)
“Interdependence between marketing and manufacturing...”	Gattiker (2007, p. 2896)
“Close collaboration between marketing and operations...”	Piercy (2007, p. 173)
“Key decision areas, which are dependent on cross-functional integration between manufacturing and marketing. These areas include strategic planning integration, strategic or visionary forecasting, demand management and operational integration.”	Paiva (2010, p. 380)
“The strategic interaction between the two critical functions of marketing, which is responsible for creating demand for a firm’s product, and operations, whose role it is to manufacture the product...”	Erickson (2012, p. 326)
Each of the definitions consists of phrases that consider alignment as interdependence, integration, and collaboration	Notes

Table 3 Summary of sample definitions of marketing and operations alignment

As might be expected given the lack of consistent operationalization of marketing-operations alignment, there have been few attempts to develop a measurement scale for marketing-operations alignment, and none of these has gained common use. Several of these instruments are summarised in Table 4. Gerow (2011) created a measure for IT-operations alignment, which were refined by later work (Gerow, Thatcher & Grover 2015). While this does involve different functional units of the organization, it addresses issues such as interaction across three organizational levels and horizontal and vertical integration of business strategy and practice across multiple units. Paiva (2010) developed a simple marketing-operations alignment scale, measuring internal coordination and problem-solving between units, but did not address different levels of the organization. Other studies have examined only limited organizational levels; for example, Hausman, et al. (2002) studied primarily strategic integration, while other studies examined mainly operational integration (Olson, Walker, Ruekert, & Bonner, 2001; Sawhney & Piper, 2002). Barriers to developing a comprehensive measurement scale include lack of adequate operationalization of the underlying constructs (MacKenzie, Podsakoff & Podsakoff 2011) and focus on large organization (Piercy, 2010). Thus, to date, there is no straightforward approach to measuring marketing-operations alignment. Further theoretical work must be done to establish a theoretical background for the concept in order to enable it.

Measurement scale	Sources	Strategic level	Tactical level	Operational level

<ul style="list-style-type: none"> • Intellectual Alignment (8 items) • Operational Alignment (6 items) • Cross-domain Alignment (6 items) • Business Alignment (12 items, 2 subscales) • IT Alignment (6 items) • Performance (8 items) 	<p>Gerow (2011)</p> <p>Gerow, et al. (2015)</p>	√	√	√
<ul style="list-style-type: none"> • Marketing importance to strategy • Manufacturing importance to strategy • Marketing and manufacturing working together • Profit • Competitive position • Morale of manufacturing personnel • Morale of marketing personnel 	<p>Hausman, et al. (2002)</p>	√		√
<ul style="list-style-type: none"> • Dyadic cooperation scales 	Olson, et			√

<p>between departments (Marketing, R&D, Operations) and shift (Early, Late)</p>	al. (2001)			
<ul style="list-style-type: none"> • Manufacturing and marketing integration <ul style="list-style-type: none"> ○ Joint activities to develop new products/services (S) ○ Joint activities to improve coordination between manufacturing and marketing (T) ○ Cooperative activities for problem solving (O) • Managerial priorities • Business performance 	Paiva (2010)	√	√	√
<ul style="list-style-type: none"> • Operations function consults marketing function prior to process changes • Order entry system stores order information, completion time and capacity information 	Sawhney and Piper (2002)			√

<ul style="list-style-type: none"> Marketing consults operations before special feature requests are accepted. Marketing consults operations before early delivery requests are accepted. 				
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Table 4 Summary of existing scales for marketing and operations alignment

3.2. The origins and history of organizational alignment

Alignment is a concept that is used broadly in management, at the expense of a clear definition or model that explains exactly *how* it is being used. In general, organizational alignment between functional units is conceptualized as an actual or potential source of competitive advantage (Powell 1992), for example contributing to financial performance or effective resource utilization (Huang, et al., 2010; Wu, et al., 2015). This is consistent with definitions of organizational alignment that focus on the development of organizational capabilities (Henderson & Venkatraman 1999). However, there are also some significant gaps in the empirical research, including a focus on vertical alignment between strategy and operations, rather than horizontal alignment between units (Kathuria, Joshi & Porth 2007). For example, the popular Balanced Scorecard tool (Kaplan & Norton 2006) focuses entirely on vertical alignment. This emphasis is problematic due to the increasing focus on bottom-up or so-called crowdsourced strategy, which demands understanding of horizontal organizational alignment (Gast & Zanini 2012). This leaves a significant gap in the literature surrounding horizontal alignment, which has not been addressed adequately (Kathuria, et al., 2007; Wu, et al., 2015). Further complicating the literature in this area is that the concept of alignment is used in disparate contexts, such as the alignment between policy and actual

practice (Storbacka 2012). This points to a significant gap in the literature on horizontal operations alignment.

Alignment and integration of business goals, strategies, resources, and processes is a complex and contested issue within the literature (Frankel & Mollenkopf 2015). Pagell's (2004) model of internal integration in the supply chain and operations functional areas of the firm identified different drivers and levels of integration. His work also found that most studies addressed dyadic pairs of functional units as cross-functional integration problems, with much less work addressing intra-firm integration (or integration of functions across an entire organization, such as IT) and intra-function integration (Pagell 2004). Later analysis has shown that this confusion and focus on dyadic cross-functional integration continues (Frankel & Mollenkopf 2015). These authors showed that there vertical alignment between different levels of the organization *and* cross-functional integration were both required (Frankel & Mollenkopf 2015). Thus, integration, alignment, and cross-functional integration are often confused terms, but in terms of strategic value, there is evidence for all three.

This research focuses on marketing-operations alignment. Marketing-operations alignment is a relatively recent concept. There was scattered interest in the issue of aligning marketing and operations alignment during the 1960s and 1970s, although this evidence was limited by the predominant mass production model in use at the time (Hayes & Wheelwright 1979; Lawrence & Lorsch 1967; Shapiro 1977; Skinner 1974). In the 1980s, the emergence of competitive advantage (Porter 1985), made marketing-operations alignment more of a concern. However, the concept did not fully emerge until the 1980s and 1990s, in studies that mainly focused on joint decision-making (Eliashberg & Steinberg, 1987; Eliashberg & Steinberg, 1993; Hausman & Montgomery, 1993; Karmarkar, 1996; Lee & Kim, 1993). In the early 2000s, research into marketing-operations alignment began to grow rapidly, identifying issues like the role of customer value, specification of three levels of integration,

and examination of how marketing-operations alignment influence firm practices like new product development (Calantone, et al., 2002; Malhotra & Sharma, 2002; Piercy & Rich, 2004). Thus, the concept of marketing-operations alignment has grown with an increasingly competitive manufacturing environment, in which the firm's market orientation has become increasingly important for competitive advantage. However, the concept of marketing-operations alignment did not develop in tandem with the concept of competitive advantage but instead post-dates its development by about ten years.

3.3. Empirical evidence for marketing-operations alignment

There have been relatively few studies that have directly examined the evidence for marketing-operations alignment, its antecedents and its consequences. Furthermore, these studies have used a wide array of methods and conceptual models, making it difficult to generalize the findings between them.

The earliest study found was a two-stage survey of firm strategies for marketing-operations alignment (Weir, et al., 2000). These authors conducted an exploratory study, consisting of a broad initial survey (n = 319) followed by in-depth interviews with selected firms (n = 20). The authors found that except in the largest firms surveyed, alignment of marketing and operations was incomplete and fragmented. Typically, there was no formal top-down strategy or objectives related to marketing-operations alignment. Instead, alignment was ad hoc or improvised, and links were often sparse; in many firms, only a single top-level manager had responsibility for strategic planning for both departments, which could constitute the only link (Weir, et al., 2000). Hausman, et al. (2002) conducted a two-stage quantitative survey of business leaders (n = 390). These authors conceptualized the marketing-operations alignment construct as marketing/manufacturing (M/M) harmony. They found that M/M harmony had a small, though noticeable, effect on the firm's profit

performance ($R^2 = 0.14$ and $R^2 = 0.20$ respectively) (Hausman, et al., 2002). Another early study showed that marketing-operations alignment did have a positive relationship to NPD activities, which could affect marketing outcomes (Tatikonda & Montoya-Weiss 2001). These early studies provided valuable support for the concept of marketing-operations alignment and its importance. At the same time, they demonstrated that this practice was often not a priority in strategic planning and operations.

More recent studies have provided more concrete evidence for the importance of marketing-operations alignment. Mollenkopf, et al. (2011) conducted an in-depth case study of an appliance firm, finding that marketing-operations alignment was highly dependent on the external environment. The authors did find that marketing-operations alignment was critical for ensuring customer satisfaction with the returns policy and practice (Mollenkopf, et al., 2011). Oliva and Watson (2011) also conducted a single case study addressing this question. They found that there was a high degree of operational alignment driven by personal relationships and communication. This study is interesting because it addresses the actual mechanisms of alignment, but it is mainly focused on the operational level. Marques, et al. (2014) conducted a neural network analysis of Brazilian firms, focusing on the relationship between marketing decisions and operational performance. The authors found that seller characteristics had a strong influence on delivery performance. These characteristics included the sales share, purchase frequency, volume, and product types (Marques, et al., 2014). Finally, an archival study has directly tested the relationship of marketing and operations alignment (Yu & Ramanathan 2014). The authors found that marketing capability and operations capability were positively related, and operations capability was positively related to retail capability. Furthermore, the positive relationship between marketing capability and financial performance was fully mediated by operations capability (Yu & Ramanathan 2014). This study provides the strongest available evidence

that marketing-operations alignment represents a competitive advantage for the firm and is a core capability of its departments. Taken together, these studies demonstrate that marketing-operations alignment is important for the firm's performance, but that it is still underdeveloped and under-implemented in firms.

Authors	Description	Methods	Findings
Hausman, Montgomery and Roth (2002)	Exploratory study of the effects of the marketing and operations interface on the firm's performance.	Quantitative survey of business leaders (n = 390)	The authors found a small effect of what they termed marketing/manufacturing (M/M) harmony on the firm's profit ($R^2 = 0.14$) and competitive position ($R^2 = 0.20$).
Marques, et al. (2014)	Study of the between marketing decisions and operational performance.	Neural network analysis of a firm's performance in Brazil	Seller characteristics (sales share, purchase frequency, volume, and product types) had a strong influence on delivery performance.
Mollenkopf, et al. (2011)	Study of the marketing-operations interface in	In-depth case study of an appliance firm	Customers were highly dependent on the returns policy. Thus, the effective interfacing of the

	the context of product returns.		marketing and operations resources to facilitate returns was a factor in customer satisfaction and firm performance.
Nath, Nachiappan and Ramanathan (2010)	Study of marketing and operations capability and diversification strategy on the firm's performance.	Quantitative survey of UK-based manufacturing firms (n = 102)	Marketing capability's effect on firm performance (0.21) was nearly twice that of operations capability (0.11). Marketing capability had a much stronger effect (0.38) in the group that focused on production efficiencies, while operations capability effect was essentially unchanged (0.13).
Oliva and Watson (2011)	Study of the relationship of sales and operations planning in	Detailed case study (single firm)	The firm did not have a strong strategic or tactical position of aligning sales and marketing and operations strategies, and

	the supply chain management process.		did not implement incentives to encourage alignment. Despite this, the firm showed a high level of operational process alignment because this alignment was in the interests of both groups, facilitated by personal relationships and communication.
Tatikonda and Montoya-Weiss (2001)	Relationship of marketing and operations alignment and product development.	Quantitative analysis of completed development projects (n = 120)	The authors found that organizational process factors had an influence on new product development and that the success of this development process was a factor in the marketing outcomes. The interaction between production and operations influenced the overall outcomes, and in the authors' view

			represented a significant firm capability.
Weir, et al. (2000)	Descriptive study of approaches used to align marketing and production strategies.	Two-stage survey of firms (n = 319 first stage, n = 20 second stage)	Except in the largest firms, alignment and marketing and production was incomplete and often fragmented. Firms often did not have formal strategies and did not organize their objectives in either department for alignment. Often, firms had a single manager linking the two departments. Thus, in most firms, alignment of marketing and operations was exceptionally weak.
Yalabik, et al. (2005)	Studying the relationship between the marketing and operations functions in	Economic modelling	The authors showed that coordination of marketing and operations costs was required in the firm's returns policy. If the return policy was too

	relation to product returns.		generous (supported by the marketing department) the firm's return costs would be excessive; in contrast, if the operations strategy dominated, returns would be too restrictive, reducing revenues. The authors observed that most firms tended to have an unbalanced policy and recommended that both issues should be taken into consideration. However, this study is relatively weak because it did not rely on empirical research.
Yu and Ramanathan (2014)	Studying the relationships between marketing and operations capabilities	Archival survey of UK firms (n = 184)	Unlike Nath, et al. (2010) Yu and Ramanathan (2014) did directly test the relationship between marketing capability and operations capability.

	<p>and effects on retail efficiency and firm performance.</p>		<p>They found that marketing capability had a significant positive relationship to operations capability, while operations capability was positively related to retail efficiency. The study also found that there was a positive relationship between marketing capability and financial performance, but that this was mediated by operations capability. Thus, the firm requires marketing and operations capability both, and these capabilities must interact in order to ensure the firm's performance levels.</p>
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Table 5 Summary of studies on marketing and operations alignment

3.4. A possible theoretical basis for marketing-operations alignment: Configuration theory

One of the biggest weaknesses of the alignment literature is that it lacks a cogent theoretical basis for understanding how and why it works within the organization. Configuration theory is proposed as a theoretical basis for marketing-operations alignment. Configuration theory proposes that the changes in the organization's processes, goals and strategies (its configuration) are contingent on internal and external imperatives (Miller, 1987; Miller, 1990). Internal imperatives include the leadership imperative, structural imperative and strategic imperative, while the main external imperative is the environmental imperative (operating and competitive environment). The imperatives are affected by factors such as firm size, leadership, and the firm's life cycle (Miller, 1987). These imperatives create different conditions and operational approaches as the firm responds to its operational environment (Miller, 1987). For example, a firm in a highly competitive environment may evolve extensive market intelligence structures and internal meritocratic processes, while a firm in a less competitive environment may be less responsive and adopt a more hierarchical structure (Miller, 1987). Miller (1987) argued that the dominant imperative changed over the firm's life cycle; while firms in the birth stage are dominated by the leadership imperative, those in the growth stage are mainly affected by the environmental imperative and in maturity the firm's structure imperatives become dominant (Miller, 1987). In the revival stage, strategy, leadership and environmental imperatives may influence the firm. Miller (1990) specified that second-order change, which is always more difficult, is primarily affected by these imperatives. Furthermore, common organizational structures, including: the bureaucracy (characterized by strict structure and encouraged by factors such as corporate culture, technological demands and strongly formalized procedures); the adhocracy (an open system, adaptable organization operating in a highly changeable market); the simple type

(small, informal, flat, and centralized organizations with little internal structure, typical of startups and small family firms); and the diversified form (in which organizational activities are divisional and different products or markets are pursued independently) (Miller, 1990). In theory structures can also influence the extent of marketing-operations alignment required (Turkulainen et al. 2013). These authors discussed the project-based firm, arguing that it required far stronger alignment between marketing and operations in order to be successful. This high level of required alignment is because the marketing department is directly selling the services or products of the manufacturing department, while the manufacturing department must be responsive to customer needs (Turkulainen, et al., 2013).

There are several key critiques of configuration theory that do need to be considered. One of these critiques is that the initial model was relatively simplistic and did not address different ways the organization's processes and structures could be intertwined (Miller 1996). There is also a lack of acknowledgement of the importance of organizational values and culture as a potential imperative (Bensaou & Venkatraman 1995; Hinings et al. 1996). Historically, the model has also been used primarily as a typological framework, rather than as a source of competitive advantage (Miller, 1996; Miller, 1999). It is this critique that the application of configuration theory to the problem of marketing-operations alignment can best address, by applying configuration theory to the operational practice and strategy of alignment at the strategic, operational, and tactical levels. Previous studies have also used configuration theory as the basis for understanding organizational alignment, primarily vertical alignment (Doty, Glick & Huber 1993; Kabadayi, Eyuboglu & Thomas 2007; Kleinaltenkamp et al. 2012; Vorhies & Morgan 2003). Configuration theory must be acknowledged to be an incomplete theoretical basis for marketing-operations alignment, because of these limitations and because it only addresses the antecedents or causal factors in alignment and not the process of alignment itself. Thus, it is presented as a preliminary

explanation for the fact of marketing-operations alignment, and not as an organizational theory that explains how marketing-operations alignment occurs.

3.5. Importance of alignment for business outcomes

Operational alignment is important to achieve a number of business outcomes which include the effect that alignment has on innovation, customer loyalty, satisfaction, reduction of switching costs, as well as after sales customer services such as returns.

Alignment is especially important when there is a process of sales reversal. This is where the company can lose customers, and this is where the coordination between functions is tested. Mollenkopf, Frankel & Russo (2011) indicate that marketing and operations alignment is important when returns are generated and that when returns are managed properly, the process can create customer value (Mollenkopf, Frankel & Russo 2011)

Another paper added that the impact of the marketing functions' capability on firm performance was higher than operations however, the findings were limited as the impact of the marketing and operations together was not studied by Nath, Nachiappan & Ramanathan (2010). While Yu and Ramanathan (2014) concluded that the impact of marketing on firm performance was mediated by operations capabilities, the magnitude of the combined impact was not determined. However, these studies provide sufficient preliminary evidence that marketing and operations alignment do have a strong impact on firms and that studying the topic would prove to be a valuable contribution to both theory and practice.

Crossfunctional intergration is the broad term that defines the alignment between operations and marketing. Troy, Hirunyawipada, and Paswan (2008) noted that while there were different effects of marketing and operations on products in different stages of development, the study noted that marketing and operations integration has the greatest impact in the commercialization stage. Kong et al. (2015) has also noted that while

manufacturing and marketing integration has a positive impact on the speed with which new product is developed, there are differing impacts of the alignment on different stages of a new product development process.

In a Spanish context, however, it was found that cross-functional integration had a more direct impact on the success of a new product (Parry et al. 2010).

A useful result was found by Thomé, Sousa and Scavarda do Carmo (2014) where the authors noted that integration with suppliers was the main variable that positively impacted the sales and operations performance and alignment. The results indicate that there are a variety of complex factors that have an impact on alignment between the marketing and operations functions. Brettel et al. (2011), on the other hand, note that generalizations cannot be made about the impact that marketing and operations cross-functional alignment has on business performance. Each case has to be studied individually to determine this impact, as the interaction of functions is highly complex.

3.6. The current state of the literature on marketing-operations alignment

The late development of marketing-operations alignment as a concept is surprising, given that it was an obvious pairing for the early alignment research in the 1980s (Karmarkar 1996). This late development and slow growth in interest has meant that there are several remaining gaps in the literature, both theoretically and empirically. Several studies have identified key problems in the relationship between marketing and operations alignment (Piercy, 2007; Piercy, 2010). One of the key problems is lack of clear conceptualization of the relationship and its nature, which Piercy (2010) has suggested improvements to resolve.

There are several key empirical issues that remain (Dixon et al. 2014; Marques et al. 2014). These issues include, for example, what the operational requirements for marketing-operations alignment are and how to balance the concerns and priorities of the two different

units. There is also a lack of knowledge about actual behavioral and operational practices that facilitate or prohibit effective alignment between marketing and operations concerns (Hausman, et al., 2002; Marques, et al., 2014; Tang, 2010). Although there has been some research into operational alignment tools (Feng, D'Amours & Beauregard 2008; Gattiker 2007), these studies have focused on technological tools and not organizational processes (Marques, et al., 2014) or the effect of organizational structure and configuration (Lee, Kozlenkova & Palmatier 2015). Lack of understanding of the marketing department's strategic performance may also be observed (Klaus et al. 2014).

A further problem is the lack of understanding of alignment's tangible benefits to the firm. For example, there has not been much empirical exploration of returns management, with most research focusing on product design, production, and forward logistics (Mollenkopf, Frankel & Russo 2011; Yalabik, Petruzzi & Chhajed 2005). This gap is critical because of the importance of returns management to customers (Mollenkopf, et al., 2011). There is also a problem with understanding the real costs and benefits of organizational costs. Marketing and operations functions may often have different or even conflicting operational and strategic goals (for example, ensuring customer satisfaction versus controlling costs) (Erickson 2012). This means that each interaction within the alignment process incurs a transfer price, which represents the lost opportunities of cooperation and coordination versus enforcing the function's dominant interest, which is offset by the gains (Erickson 2012). Furthermore, economic theory suggests that alignment strategies need to be balanced in order to ensure the firm's returns (Yalabik, et al., 2005). However, there have been few attempts to actually determine the basis for balancing the interests and strategic goals of the individual units in order to benefit the firm as a whole. Only a single study could be found that addressed this question (Nath, Nachiappan & Ramanathan 2010). These authors concluded that since marketing capabilities affected firm performance more than operational

capabilities, marketing capabilities should take precedence (Nath, et al., 2010). However, with only a single study in one country and sector, this is very limited evidence for such a decision.

3.7. Summary and synthesis of the literature on marketing-operations alignment

This review on marketing-operations alignment has shown that despite the multiplicity of definitions and overlapping, sometimes ambiguous concepts, there is a general trend within the literature that defines alignment as a collaborative, interdependent, or coordination activity. The working definition offered here addresses these aspects of coordination at multiple levels, including strategic, tactical, and operational levels, which would ensure that the functional units are aligned at all levels. There are no broadly accepted measures for organizational alignment of functional units, although a few instruments could be identified. The theoretical basis of marketing-operations alignment is proposed as configuration theory, which addresses the process and goals of interdepartmental configurations and coordination. Empirical evidence on marketing-operations alignment has only been extant since around 2000, with most earlier work being mainly theoretical or practice-oriented. Furthermore, many of the studies are single case studies, rather than broader studies. These studies suggest that this is not just a gap in the literature, as several case studies have shown that marketing-operations alignment is neglected as an organizational practice and may often be fragmented or built on single managers' personal networks of formal and informal influence. Thus, even though marketing-operations alignment can be seen to be beneficial to the firm, it has been implemented inconsistently within the organization.

There are several remaining issues in the literature on marketing-operations alignment. One of these issues is limited measurement instruments for alignment (generally or specifically). Furthermore, there is a lack of theoretical evidence in areas such as empirical

knowledge about implementation of alignment strategies and the costs and benefits to the firm and its component functional areas. A more fundamental gap is a lack of theoretical background that describes the process of operational alignment between the marketing and operations functional units in the firm. This is the problem with the research that the current paper addresses.

4. Theoretical Background

4.1. The design of the theoretical background

An adaptive approach was used to derive this model from the backgrounds proposed by previous researchers (Malhotra & Sharma 2002; Marques et al. 2014; Parente 1998; Tang 2010; Weir et al. 2000). The basis of the theoretical background is Parente's (1998) consolidation of existing research into marketing-manufacturing interfaces, where she proposes that such interfaces (here termed integration) takes place in an interdepartmental arena, in which shared operational, tactical and strategic concerns are aired. Within this arena, the departments (or more specifically their employees) interact and respond to each other's concerns, with both organizational functions reacting both to their own external stimuli and to the feedback provided by the other organizational function. However, each function retains control over its own decision-making and intelligence domains. Decision-making domains and criteria vary, and functions do not always have the same priorities or objectives, even when their goals are vertically aligned with the same organizational objectives (Weir, et al., 2000). However, these functions do have shared goals, activities, and other commonalities that provide space for alignment (Malhotra & Sharma 2002). Some shared activities that could provide common ground include included strategic planning integration, strategic forecasting, new product, process and service development, tactical forecasting, sales and operations planning (S&OP, or demand management), and operational

integration (Malhotra & Sharma 2002). Finally, the marketing and operations functions have distinct sources of intelligence that provide external information (Marques, et al., 2014; Tang, 2010). These sources provide multiple perspectives on the firm's environmental imperative. Thus, the source of competitive advantage for marketing-operations alignment under this theoretical background is the enhanced ability to sense and respond to environmental imperatives, as well as improved response to strategic and structural imperatives.

4.2. The motivational factor for alignment

Following configuration theory, it is argued that marketing-operations alignment takes place as a result of the strategic and leadership imperatives, which respond to market pressures by increasing efficiency and coordination between departments (Miller, 1990). While the theoretical background is not limited in terms of its role in firm structure or a specific stage in the lifecycle, examination of Miller's (1987, 1990) work on firm configuration through the lifecycle suggests that marketing-operations alignment would be most important during the growth, maturity and revival stages of the firm.

4.3. Marketing intelligence → marketing decision

From the marketing side, the main external influences include market intelligence from customers, competitors, and other sources (Tang, 2010). These external information sources demonstrate to the firm what types of products/services it should be providing to meet customer needs, which is why the main concern of the marketing department is the product mix (or for a service firm, the service mix) (Marques, et al., 2014).

4.4. Operations intelligence → operations decision

In the operations functional unit, key external influences include information about the company's operations and its suppliers, for example as derived from the firm's business

intelligence (BI) analytics, enterprise resource planning (ERP) systems, or other sources (Tang, et al., 2010). These systems coordinate and analyze the exchange of information between the firm's internal operations and external environment at multiple levels, from floor operations to large-scale supply chain planning (Marques, et al., 2014). The operations functional unit(s) of a firm are broadly concerned with issues including quality, cost, delivery and flexibility, with firms having different metrics and reference points based on the external environment and internal capabilities (Weir, et al., 2000). Thus, these are the main concerns that could influence how the operations functional units attempt to align their goals and strategies with marketing.

4.5. The point of alignment between marketing and operations

Parente (1998), who consolidated and integrated previous research on the marketing-manufacturing interface, provided the tri-level point of alignment between the strategic, tactical and operational goals and activities of the two departments as a basis for understanding the actual point of interaction. These points of alignments bring together specific concerns of the marketing and operations departments in order to identify shared goals and strategies that can be identified among the disparate concerns of the functional units (Malhotra & Sharma, 2002; Weir, et al., 2000). The point of alignment, which Parente (1998) termed the *interdepartmental arena*, is fundamentally the area of interaction, collaboration, coordination and interdependence of the two departments, where joint decisions may be made. Some of the activities and processes that could take place within the point of alignment include strategic planning integration, strategic forecasting, new product, process and service development, tactical forecasting, sales and operations planning (S&OP, or demand management), and operational integration (Malhotra & Sharma 2002).

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5. Conclusions and Recommendations

The concept of marketing-operations alignment arose from industrial changes in the 1970s and 1980s, when increasing competition between manufacturers led to the old, manufacturing-led design and sales approach being less effective. However, it has only developed slowly. Although the role of marketing-operations alignment as a competitive advantage became clear in the late 1980s and late 1990s, the first exploratory studies of actual marketing-operations alignment practices in firms did not emerge until the early 2000s. Development has continued to be slow in the intervening period, with evidence still lagging for actual firm practices, impacts on the firm, and how dilemmas such as resource conflicts and goal conflicts should be resolved. In part, this lack of progress is due to a firm theoretical foundation for marketing-operations alignment. Although the practice has been discussed under various terms, such as fit, interface, and cooperation, there has never been a strong underlying theory of how marketing-operations alignment arises and what influences its priorities and practices. There are also other limitations, including lack of an effective measure that can be applied to assess marketing-operations alignment. This literature review and theoretical formulation was an attempt to remedy this gap in the literature, by applying configuration theory and taking into account various theoretical and empirical insights from the previous research. The research was designed as a dual-use background, enabling outside analysis of the firm's horizontal alignment and acting as an internal analysis tool. This background is obviously limited in that it has not yet been empirically tested. It is further limited in that the weakness of empirical literature on marketing-operations alignment. Thus, there is the opportunity to improve our understanding of marketing-operations alignment by applying this model in empirical research. This would allow for better practical understanding of marketing-operations alignment and theoretical refinement of the proposed model.

5.1. Contribution to Theory and Practice

The current state of theory on marketing-operations alignment is that it is fragmented across different fields and slightly different concepts and models, many of which are essentially similar but which have variations in terminology and underlying causal mechanisms. This lack of consistency means that the organizational practice of alignment between marketing and operations functions, which has been developing since the 1970s, has far outpaced its theoretical underpinning. The contribution of this research to theory is a summation and evaluation of the current state of this body of theory and a synthesis of existing models to create a single, integrated model of marketing-operations alignment that incorporates the most empirically grounded and useful aspects of existing models. By providing an integrated process model within the context of the point of alignment proposed by Parente (1998), this research offers a theoretical starting point for consolidating and integrating prior studies of marketing-operations alignment, along with the numerous related concepts that have emerged. This model does not necessarily mark the end point of such theoretical development, and is open to further theoretical development.

The contribution to practice of this research is a model of marketing-operations alignment that is grounded in organizational practice and that strategic managers can use to evaluate their current practices of alignment and determine where there may be gaps in implementation, or to implement new alignment practices. While any organization implementing this model would be expected to adapt it to their specific needs and departmental structures, it provides a clear understanding of the respective domains and points of alignment and levels of decision making where interaction and coordination between the marketing and operations departments is used. The most important lesson in this research for practical application is that marketing-operations alignment does not occur organically, especially in a hierarchical department organizational structure. Instead,

managers must deliberately choose to create formal – and maybe even informal – communication and decision channels that enable coordination of marketing and operations decision making and activities at the strategic, operational, and tactical level.

5.2. Future Research

This is important because the theoretical positions discussed above show that there is a strong likelihood that marketing-operations alignment would contribute substantially to the firm's performance, affecting its financial and operational performance (Nath, Nachiappan & Ramanathan 2010). At the same time, it is also clear from case studies that firms are not aligning their marketing and operations functional units well, and may be paying a price for inefficient and fragmented coordination and alignment systems (Wu, Straub & Liang 2015; Yalabik, Petruzzi & Chhajed 2005). Continued poor theoretical development has impeded empirical study of alignment in the organization generally (Gerow, 2011; Gerow, et al., 2015), which would prevent firms from implementing any organizational strategies that could be derived from the academic literature. Thus, strengthening the theoretical explanation of marketing-operations alignment would be important for firms to improve their understanding and implementation of the alignment process.

In conclusion, there is clearly more work to be done in the area of marketing-operations alignment, which has suffered from both relatively low levels of interest in academia and in organizational practice and in failure of a single theoretical model or construct to emerge. Instead, the literature on organizational alignment has been to some extent duplicated across multiple different concepts, like coordination and fit, and has not been consolidated or integrated into a single theoretical background. This has impeded the development of empirical research into the topic. While this study has contributed a proposed theoretical background based on configuration theory and oriented toward marketing-

operations alignment, there are several other issues that could be explored. One of the most obvious issues is lack of empirical evidence for how and why firms undertake organizational alignment of different functional units and what the costs and benefits are. To date, most such work has been done as either small-scale surveys or as case studies. In-depth organizational case studies could provide more evidence for functional unit alignment and its variations, which would provide more evidence for theoretical development. The state of the research also calls for a return to basics on understanding of marketing-operations alignment, and a focus on theory building. While configuration theory provided a partial explanation for what factors may influence the internal structure of the organization, and thus potentially affect alignment, it is a grand theory that does not specifically address the role of organizational alignment (either horizontal or vertical) within the organization. Thus, there are both empirical and theoretical avenues for further research that could be explored.

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Appendix

Bibliography	Journal	Discipline	Area of Focus	Relevance
Bensaou and Vankaratraman (1995)	<i>Management Science</i>	Functional alignment	broad does not focus only on marketing and operations functional alignment only. Based on US and Japan comparison	strong
Brettel, Heinemann, Engelen and Neubauer (2011)	Journal of Product Innovation Management	marketing and operations alignment	relevant and links to organizational performance in terms of the effect on product innovation, effectiveness, and efficiency	Strong
Calantone, Dröge & Vickery (2002)	Journal of Operations Management	marketing and operations alignment	marketing and manufacturing is the focus but in the context of new product development	strong
Christopher (2016)	Book	marketing and operations alignment	broad covers a variety of topics	moderate
Dixon, Karniouchina, van der Rhee, Verma and Victorino (2014)	<i>Journal of Service Management</i>	marketing and operations alignment	Marketing and operational alignment are the focus. Impact on strategy is discussed	strong

Doty, Glick and Huber (1993)	<i>The Academy of Management Journal</i>	Organizational alignment	gives insight into configurational theory, which is a key topic of this research. However, the research is dated	moderate
Eliashberg and Steinberg (1987)	<i>Management Science</i>	marketing and operations alignment	focuses on marketing and operations in the context of distribution channels. The research is dated therefore relevance to current research is weak	weak
Eliashberg and Steinberg (1993)	Book	marketing and operations alignment	Based on old research, but gives insight into topic's history	weak
Erickson (2012)	<i>European Journal of Operational Research</i>	marketing and operations alignment	marketing and operational alignment is the focus. Impact on Pricing is discussed	strong
Feng, D'Amours and Beaugard (2008)	<i>International Journal of Production Economics</i>	Functional alignment	focuses only on the sales element in marketing and planning of operations. Introduces specificity which is useful in understanding how marketing and operations are closely interlinked.	moderate

Frankel and Mollenkopf (2015)	<i>Journal of Business Logistics</i>	Functional alignment	cross functional integration is discussed	strong
Gast and Zanini (2012)	<i>McKinsey Quarterly</i>	Organizational alignment	Focuses on overall organizational alignment, not focused on marketing and operations alignment	moderate
Gattiker (2007)	<i>International Journal of Production Research</i>	marketing and operations alignment	marketing and operations is focused on in the context of ERP.	strong
Gerow (2011)	Dissertation	Functional alignment	focuses on business strategy and IT alignment. Not particularly relevant to marketing and operations alignment	weak
Gerow, Thatcher and Grover (2015)	<i>European Journal of Information Systems</i>	Functional alignment	focuses on business strategy and IT alignment. It is relevant as it looks at the constructs that form a part of the alignment	strong
Hausman and Montgomery (1993)	<i>Perspectives in Operations Management</i>	marketing and operations alignment	focuses on marketing and operations in the context of strategy and linkages. Relvance is strong as it discusses tactics and strategy that	

			are useful information.	
Hausman, Montgomery and Roth (1993)	<i>Journal of Operations Management</i>	marketing and operations alignment	focus on marketing and operations is present and relevance is high. it is good paper on the justification for marketing and operations alignment	strong
Hayes and Wheelwright (1979)	<i>Harvard Business Review</i>	marketing and operations alignment	paper is dated. However, being a seminal work, it lays the foundation for the alignment argument	moderate
Henderson and Venkatraman (1999)	<i>IBM Systems Journal</i>	Functional alignment	strategic alignment and information technology. Not focused on marketing and operations but useful for emphasising role of information technology	weak

Hinings, Thibault, Slack and Kilulis (1996)	<i>Human Relations</i>	Functional alignment	brings in an important aspect of alignment - the structure of organization and values of the organization which play an implicit role in the determining organizational performance	moderate
Huang, Yang, Lien, McLean and Kuo (2010)	<i>Journal of World Business</i>	Functional alignment	operations and learning alignment. Does not focus on marketing and operations	weak
Kabadayi, Eyuboglu and Thomas (2007)	<i>Journal of Marketing</i>	Business Strategy	marketing (distribution) strategy and business strategy are discussed. It is relevant from an overall, broad perspective, but not highly relevant for studying the specific link in marketing and operations	moderate
Kaplan and Norton (2006)	Book	Functional alignment	highly relevant as it links alignment discussion with organizational performance metrics	strong

Karmarkar (1996)	<i>Journal of Marketing Research</i>	marketing and operations alignment	relevant but dated is a seminal work and hence is useful in informing about the context of the discussion on marketing and operations alignment	moderate
Kathuria, Joshi and Porth (2007)	<i>Management Decision</i>	Organizational alignment	links alignment of overall organization with the performance of the company. It is a little broad for the current paper	moderate
Klaus, Edvardsson, Keiningham and Gruber (2014)	<i>Journal of Service Management</i>	Business Strategy	marketing as a strategic objective	weak
Kleinaltenkamp, Brodie, Frow, Hughes, Peter, and Worathschek (2012)	<i>Marketing Theory</i>	marketing and operations alignment	it covers the topic very well	strong
Kong, Li, Feng and Sun (2015)	<i>International Journal of Production Research</i>	marketing and operations alignment	relevant and links to marketing and operations with a focus on how new product development is impacted	strong

Kotler and Keller (2012)	Book	Business Strategy	broad and widely used book on marketing has a variety of marketing topics and provides a good understanding of how operations and marketing should be linked	moderate
Lawrence and Lorsch (1967)	<i>Administrative Science Quarterly</i>	Business Strategy	seminal work which lays the foundation	moderate
Lee and Kim (1993)	<i>Decision Sciences</i>	marketing and operations alignment	highly relevant as it links alignment discussion with decision making, the drawback is that it is dated	strong
Lee, Kozlenkova, and Palmatier (2015)	<i>Journal of the Academy of Marketing Sciences</i>	Business Strategy	links alignment of overall organization with marketing objectives. It is a little broad for the current paper as it does not focus on operations	moderate
MacKenzie, Podsakoff, and Podsakoff (2011)	<i>MIS Quarterly</i>	Business Strategy	not very relevant as it is about management and behavioural research.	weak

Malhotra and Sharma (2002)	<i>Journal of Operations Management</i>	marketing and operations alignment	relevant. It is a seminal work and hence is useful in informing about the context of the discussion on marketing and operations alignment.	strong
Marques, Lacerda, Camargo, and Teixeira (2014)	<i>International Journal of Production Economics</i>	marketing and operations alignment	highly relevant covers a lot of relevant areas	strong
Miller (1987)	<i>The Academy of Management Review</i>	Functional alignment	seminal work which lays the foundation	strong
Miller (1990)	<i>Human Relations</i>	Organizational alignment	moderate, the topic is quite broad	moderate
Miller (1996)	<i>Strategic Management Journal</i>	Organizational alignment	Moderate and is a revisitation of the work done in 1990. it is relevant because of this comparison, as it shows the change in theory over a period of 6 years	strong

Miller (1999)	<i>MIR: Management International Review</i>	Organizational alignment	moderate and is a revisit of the work done in 1990 and 1996. it is relevant because of this comparison, as it shows the change in theory over a period of 3 years	strong
Mollenkopf, Frankel and Russo (2011)	<i>Journal of Operations Management,</i>	marketing and operations alignment	relevant as it is concerned with marketing and operations and at the same time focuses on a key area which creates customer value	strong
Nadler and Tushman (1983)	Book Section	Organizational alignment	the topic is broad, but it is important as it shows how organizational behaviour and organizational alignment are linked	moderate
Narver and Slater (1990)	<i>Journal of Marketing</i>	Business Strategy	discusses the importance of marketing, but also underlines that marketing orientation should be at the core of every business process. It also links to business performance and is	strong

			relevant in this regards	
Nath, Nachiappan and Ramanathan (2010)	<i>Industrial Marketing Management</i>	marketing and operations alignment	important, although there are some gaps. It has a lot of useful information on how marketing and operations capabilities impact business performance	strong
Oliva and Watson (2011)	<i>Journal of Operations Management</i>	cross-functional alignment	it is relevant as it relates to the entire supply chain with a particular focus on sales and operations	strong
Olson, Walker, Ruekert, and Bonner (2001)	<i>The Journal of Product Innovation Management</i>	marketing and operations alignment	relevant as it is concerned with marketing and operations and at the same time focuses on new product development	strong

Pagell (2004)	<i>Journal of Operations Management</i>	marketing and operations alignment	highly relevant as it is one of the very papers that identifies the problems that companies face in integrating the two functions	strong
Paiva (2010)	<i>International Journal of Production Economics</i>	marketing and operations alignment	highly relevant as it covers the topic well and has good information about how alignment can create capabilities	strong
Palmer (2007)	<i>Proceedings of the Human Factors and Ergonomics Society 51st Annual Meeting</i>	Functional alignment	moderately relevant as a focus in on learning and operations	moderate
Parente (1998)	<i>International Journal of Operations and Production Management</i>	marketing and operations alignment	relevant but dated is a seminal work and hence is useful in informing about the context of the discussion on marketing and operations alignment	Strong

Parry, Ferrín, Varela González and Song (2010)	Journal of Product Innovation Management	Organizational alignment	relevant and can help elucidate differences in countries	Strong
Piercy (2007)	<i>Journal of Strategic Marketing</i>	marketing and operations alignment	highly relevant as it is one of the very papers that identifies the problems that companies face in integrating the two functions	strong
Piercy (2010)	<i>Journal of Strategic Marketing</i>	marketing and operations alignment	relevant as it has recommendations on improvement	strong
Piercy and Rich (2004)	<i>Journal of Strategic Marketing</i>	marketing and operations alignment	relevant as it applies the concept to a lean organization	strong
Porter (1985)	Book	Business Strategy	relevant but covers a lot of topics that are beyond the scope of this paper	moderate
Powell (1992)	<i>Strategic Management Journal</i>	Organizational alignment	relevant but covers a lot of topics that are beyond the scope of this paper	moderate
Rosemann and vom Brocke (2015)	Book	Business Strategy	relevant but covers a lot of topics that are beyond the scope of this paper	moderate

Sawhney and Piper (2002)	<i>Journal of Operations Management</i>	marketing and operations alignment	relevant and focused. Provides examples from one industry	strong
Shapiro (1977)	<i>Harvard Business Review</i>	marketing and operations alignment	relevant but is old. However, it is a seminal work and shows how management and academic thinking about the topic were several decades ago.	moderate
Skinner (1974)	<i>Harvard Business Review</i>	Business Strategy	not highly relevant to the topic at hand. Focuses on how operations and business productivity are linked	weak
Storbacka (2012)	<i>Journal of Business and Industrial Marketing</i>	Business Strategy	not highly relevant to the topic at hand. Focuses on how design elements and management practices are linked.	weak
Tang (2010)	<i>International Journal of Production Economics</i>	marketing and operations alignment	highly relevant as it covers the topic well and has good information about how academia has understood the importance of alignment	strong

Taikonda and Montoya-Weiss (2001)	<i>Management Science</i>	marketing and operations alignment	relevant as it covers the alignment and its impact on the firm	strong
Taxén (2010)	Book	Business Strategy	not very relevant as it is about business and management strategies	weak
Thomé, Sousa and Scavarda do Carmo (2014)	International Journal of Production Research	marketing and operations alignment	highly relevant	Strong
Troy, Hirunyawipada and Paswan (2008)	journal of marketing	organizational alignment	relevant and links to a particular aspect of an organization	strong
Turkulainen, Kujala, Artto, and Levitt (2013)	<i>Industrial Marketing Management</i>	marketing and operations alignment	relevant as it covers the alignment in the context of a global firm	strong
Ullah and Lai (2013)	<i>ACM Transactions on Management Information Systems</i>	Functional alignment	relevant but covers a lot of topics that are beyond the scope of this paper	moderate
Weir, Kochkar, LeBeau and Edgeley (2000)	<i>Long Range Planning</i>	marketing and operations alignment	relevant as it has a lot of information from various secondary sources. However, it is nearly 17 years old.	moderate

Wu, Straub and Liang (2015)	<i>MIS Quarterly</i>	Business Strategy	not highly relevant. The topics covered as mainly beyond the scope of this research	weak
Yalabik, Petruzzi and Chhaged (2005)	<i>European Journal of Operational Research</i>	marketing and operations alignment	relevant as it is concerned with marketing and operations and at the same time focuses on a key area of returns which is a test of functional alignment at an organization	strong
Yu and Ramanathan (2014)	<i>Industrial Marketing Management</i>	marketing and operations alignment	relevant as it looks at the marketing and operations alignment impact on financial performance in a specific sector	strong

Table 6 Summary of final articles included