

## **A Tactical Framework for Client Scaling With a Multidimensional Organization**

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**Abstract:** -Customers of multinational enterprises (MNEs) exist almost everywhere. Cross border B2C e-commerce is expected to double by 2022 according to Forrester Research. How do MNE's efficiently leverage their business development efforts across geographic markets? This is called client scaling. Scaling opportunities exist across a multidimensional design (MDD) and the synergy opportunities between sites. The diagonal client dimension interacts with clients from a sales and operations perspective. This article describes the role of those who our outward facing in three categories, each of which is profitability oriented. Synergy is also clearly present as collaboration between the roles in an MDD is necessary for the realization of profitable growth. Responsibilities are shared between the roles in a collaborative way, between the sales and operational entities. These themes emerged in the data when MDD leaders were asked about the roles of each function. In this case study an MNE utilized a multidimensional organization design to reach customers in many parts of the world. The author presents findings from this case and ultimately extracts ten propositions to guide client scaling synergies. Absent these measures, risk of revenue loss is enhanced significantly.

**Keywords:** -global markets; client synergies; megatrends; functional synergy; relatedness.

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### **I. Dimensional Designs**

The most common form of multidimensional design is a matrix. Other designs with more dimensions are viewed as novel, with very little coverage in the literature. The idea of the matrix organization surfaced in the 1970's and 1980's. Some who have experienced this design have had difficulties due to the ambiguity in roles. Multinational enterprises (MNEs) have taken this a step further with multi-dimensional organizational designs. While the organizational chart may not indicate this functionally, it is how many MNEs actually work. Business development employees may report to one boss, but they are expected to network to be successful in the company. Consequently, when product managers, for example, are uncomfortable with the challenges associated with a matrix design, the situation is amplified and more complex in a multidimensional context.

Consideration needs to be given to the inadequacies of a matrix design so that similar risks of failure are not experienced in a multi-dimensional approach (Galbraith, 1977, 2009). The matrix design should be thought of as a two-dimensional construct that typically is separated functionally and geographically, for sales, and non-geographically, for support functions. Other construct variations exist. Some inadequacies with a two dimensional design include unclear responsibilities, a lack of accountability, political battles over resources, a risk-averse behavioral pattern, and loss of market share due to a lack of focus (Galbraith, 1971; Life in a matrix, 1980; Strikwerda & Stoelhorst, 2009). On the other hand, business units are not completely self-contained as they depend, to some extent, on external resources for achieving their objectives (Barney, 1991; Bower, 1986; Gupta & Govindarajan, 1986). While the M-form (hierarchical design) still dominates thought processes, the actual tendency is for firms to move away from the underlying logic of the M-form to realize growth synergies (Strikwerda & Stoelhorst, 2009). While mental anchoring on the M-form can render an MNE obsolete, or make a transition difficult, an effective multidimensional structure can enhance a MNEs growth synergy exploitation capability and preserve product managers' status, power, autonomy, and self-interest. With this in mind, and considering that most MNEs are actually multidimensional, how then can an MNE scale horizontally? This article will discuss this tactically using a case study.

People can say that they are *matrixed*. The transition in reality has occurred from *matrixed* to *networked*. Many large companies have abandoned the former for the latter. These scenarios are different. To succeed in a multidimensional business, company stakeholders (those who contribute to and benefit from an employer) need to know how to help their organization succeed. An employee's boss may be influenced by another leader in the organization with regard to performance reviews and promotions of employees that report to them. Similarly, taking into consideration that employees are the most important asset in a company, companies need to scale quickly to harvest revenue from dynamic markets. This dynamic makes resource sharing critical and is a challenge in a multidimensional design.

These organizational design changes have also been market driven. Customers have multiple channels in which to purchase the same product from the same company as companies are giving consumers multiple ways to buy from them. Companies are also offering vertically integrated solutions (a full kitchen) or bundles of product from warehouse stores (pallets of tile for kitchen and bathrooms). Either way, complexity has increased as products are more *technical* and multiple items must integrate or be *regressively compatible* with other parts. Additionally, the customer experience has taken on a new meaning, further adding to the complexity of a purchase. Additional revenue streams and market penetration opportunities come from warranties and the ability to service the product sold.

Generational expectations have also changed. Younger workers expect that the boundaries in the organizational design and functional silos are easily penetrated. Consistent with the networking idea, new workers performance is linked to their ability to get feedback on their work and gain knowledge from colleagues in neighboring departments. If their work is dependent on multiple functions in a company, access is expected. While employees span functional silos, *shared services* do the same thing. Larger companies leverage *economies of scale* by centralizing certain functions and cost sharing. These functional areas must become centers of excellence for the benefit to be realized and allocation formulas need to be fair to understand performance. Examples may include inventory management, research and development, billing, facilities maintenance, human resources, finance, etc. Automation and connectivity are enablers of a multidimensional design.

A definition of a multidimensional organization is required for us to proceed. According to Strikwerda and Stoelhorst(2009) a multidimensional organization has several characteristics.

- Responsibility for the success of the firm is distributed across the functions of the organization.
- Performance information is shared across the organization.
- There is one source of financial information.
- Resources are shared across the functions.

The multidimensional design (MDD) has a number of opportunities for competitive advantage. With the sharing of results, new business can be introduced and funded by the success of others. This allows the MNE to adapt to changing market conditions. Brand value can be exploited across an expanding portfolio of products. Bricolage can be exploited to combine technologies into new products. And, customer information can be shared to increase revenue per customer and to enable vertical market penetration.

In the context of this article, an MDD is discussed that was deployed as an organizational design to meet scaling needs in an MNE. The difference between the matrix structure and a MDD can be illustrated as per Figure 1 below. In a matrix organization, the node where the two dimensions meet represents the employee who reports to two bosses, potentially with individual objectives or agendas. Reporting structures may be in a conflicted dysfunctional relationship with each other. In the multidimensional model for the case organization, the node is put forward as a profitability enhancing opportunity, or growth synergy opportunity, where representatives who are associated with the lines from each dimension can meet and align the entrepreneurial energy around discovered opportunities. The difference then is that a matrix design has a person at the node, while the MDD has an opportunity at the node.

In this design, managers are stakeholders in the exploitation of discovered opportunities. They own the lines in the structure. The leader in each dimension reports in to the same person, allowing for alignment through a singular agenda. Furthermore, this is reinforced through the organizational design and a reward system based on collaboration. Another difference between the two structures is in the planning and control processes. While the profitability of the client oriented P&L is dominant, the P&Ls for products, the support functions, and for locations are also important as they contribute significantly to profitability. Profitability or cost is, therefore, measured and monitored in each of the four dimensions through dimension-specific P&Ls.

A final difference between the structures relates to the influence of management information systems (MIS) in an MNE. The MIS reports performance in each of the dimensions at all levels of the organization. This eliminates information asymmetries and transfer pricing, as examples, thereby turning the MNE into a truly integrated dyadic relationship between a customer-centric focus and operational synergy realization. In many matrix organizations the emphasis is on authority and power (Galbraith 1971, 1973; Goold & Campbell, 2003; Ruigok, Achtenhagen, Wagner, & Ruegg-Sturm, 2000). The management in multidimensional firms focus on the firm's joint customer-centric goals by leveraging MIS or enterprise resource planning (ERP) supplied business intelligence which point to opportunity rather than the disparate and conflicted agendas of two bosses who may be misaligned and unequally capable (Strikwerda & Stoelhorst, 2009).

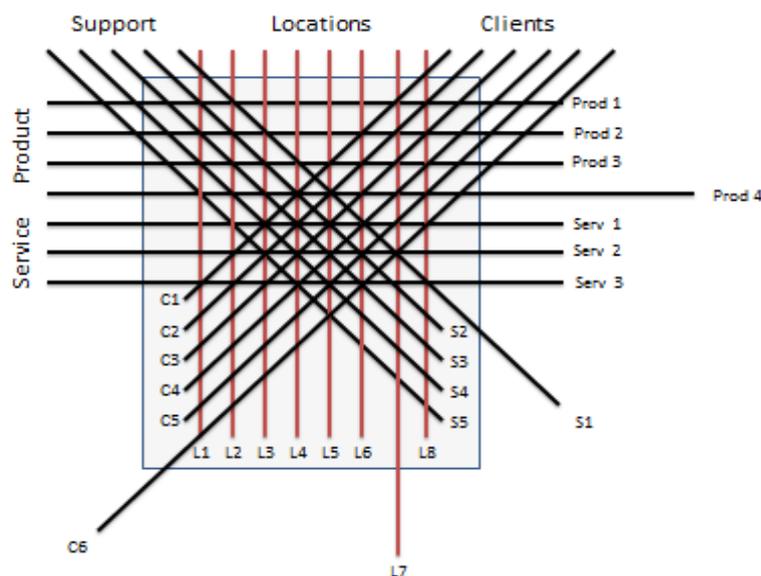
The critical result that will emerge from the empirical data in this study is theory about the realization of sustainable growth synergies in a multi-unit firm with a multidimensional organizational structure. Specifically, this study explores diagonal client scaling within the MDD. This entails scaling using product

managers who span geographic locations and support functions needed to service clients in an MNE. Only a few studies have been accomplished that explore the implementation of these designs to exploit synergies across physical locations along multiple dimensions (Strikwerda &Stoelhorst, 2009). Some firms studied were organized along the lines of key accounts, professional services, support functions, or facility management (Strikwerda &Stoelhorst, 2009).

Managers are responsible for profits, market position, and customer retention, but they control very few resources. Often, resources are controlled by facility managers who are responsible for the bottom line. This creates tension between sales, as they develop new market opportunities, and facility managers, who are accountable for the efficient utilization of resources (Galbraith, 2009; Goold& Campbell, 2003; Ruigok et al., 2000). Risk-averse behavior of resource managers must be confronted by market opportunities identified by account managers. Concurrently, market managers cannot be overly optimistic in their judgments about market opportunities (Galbraith, 2009; Goold& Campbell, 2003; Ruigokcet al., 2000). It is therefore essential that an MDD simultaneously reports performance on two or more dimensions. Managers need to be held accountable for their dimension as it contributes to overall firm performance and the execution of growth synergies. Unique challenges for implementation are present in a globally integrated enterprise with globally integrated products and services such as in this case study.

The author believes that the organizational design of a firm is a critical factor to success or failure with regard to the realization of growth opportunity. The most successful form of an MNE is the M-form, named by Williamson (1975), in which activities are organized into separate business units (Roberts, 2004; Williamson, 1985). Resources are delegated to managers charged with creating economic value for the firm. These resources are controlled within business structures that are measured for financial performance. The boundaries of the units are reinforced by financial systems. To illustrate, organizational design has been influenced by corporate agendas driven by synergistic savings evident in the form of corporate account management, shared service centers, and matrix organizations. Consequently, most businesses now depend on some resources that are controlled by other units (Strikwerda &Stoelhorst, 2009).

The MDD is illustrated in the figure below. To explain how it works in the context of scaling, consider the following scenario. A client (C6) could want more of the company's products or services. A location (L7) could expand its product or service portfolio due to a local market unmet need. An enterprise resource planning (ERP) system (S1) could be used by other divisions to leverage profitability, whereupon they would share the cost of the system, improving profitability at the company. Lastly, a product (Prod 4) could be sold to other clients, possibly external to the company. Selling products at additional locations is horizontal scaling. The scalability of the MDD, exogenous to its existing domain, points to profitability as all of these instances exploit existing skills, infrastructure, and resources. This figure illustrates the scalability of the MDD products and services across business units that have an unmet need regardless of where they are.



*Figure 1.* MDD scalability. This figure shows how the MDD lines can scale depending on the need and the dimension.

A business unit in an MNE is given both autonomy and self-interest when it is given the opportunity to identify growth synergy opportunities, when it can define their value-based attributes, when it can determine deployment timelines and the scope of coverage, and when it can determine the task rollout sequence as represented in an operational deployment plan. The author has found that business unit autonomy is augmented in at least three ways. The first is through a suitable culture, as defined in part by its organizational design and its reward system. The second is through administration and control, which includes financial review, secondary structures, and a centralized workflow management system that provides organization-wide data and analysis. The third augmentation area is related to strategy. The strategy must have structure in order for it to be focused and executed. The framework for the strategy provides this. It is also selective in that it is prioritized based on contribution to the desired outcome as measured by business modelling, such as through a forward looking pro forma P&L and a business plan where applicable. Strategy also includes the sequence of the execution of tasks, ordered due to environmental conditions and dependency. Outcomes of exploiting self-interest include profitability in the form of social impact, organizational efficacy, team efficacy, and personal leadership efficacy (Lovas&Ghoshal, 2000).

To be specific, an example of a critical success driver in an MDD is an integrated management information system (MIS) (Pankratz, 1991), assuming that it keeps current with firm adaptations to market dynamics and corporate advantage life-cycles (D'Aveni, Dagnino, & Smith, 2010). An MIS is a lateral integration mechanism (Persson, 2006) because it makes critical information and intelligence available to leaders in all of the dimensions of an MDD, thereby enabling action and mitigation. The MNE must evolve from unique local business systems geared to local needs to a networked social construct that drives transparency throughout the MNE across all dimensions (Hirschheim& Klein, 1994). A single set of common data definitions is necessary so that every transaction can be captured with suitable data density. This data can then be exploited along multiple dimensions, including reporting and analytics, across business units in a worldwide value chain. The information it contains is simultaneously available, providing for real-time sharing, change management, workflow adaptation, capacity manipulation, and production tracking. Additionally, for business intelligence it is also necessary that the MIS include customer relationship management (CRM) capability so that account managers can mine the database for order information and leads. This enhances the MNE's ability to maximize market share by exploiting customer spend budgets within applicable product categories across customers. It also fosters cooperation between managers, as performance accountability is shared across dimensions.

The multidimensional structure deployed in the case company, that is being evaluated in this article, includes the client as the primary profit center (diagonal) (Galbraith, 2005), the products and services as the secondary dimension (horizontal), the locations as the third dimension (vertical), and the performance of support services as a fourth and final dimension (diagonal). The MIS makes it possible for all stakeholders to obtain the same information in real-time, eliminating information asymmetries between and across dimensions. Cases are also used across and within all dimensions for monetizing opportunities made visible through business intelligence provided by the MIS or an enterprise resource planning (ERP) and CRM systems. The goal of all efforts is profits through the exploitation of growth synergies.

The dimensions in a multidimensional organizational design are important to the market. Business should be conducted with customers in the way that they prefer so that there is sustainable value in the relationship (Galbraith, 2005). The MDD deployed in this case study included a primary dimension that related to client management (C#). A P&L was provided to each account manager with regard to the client's overall global financial performance. This P&L was support function, location, and product agnostic. It allowed the managers to understand the profitability of working with all clients as well as each individual client. It also allowed for an understanding of profitability from the client, as it related to product type and the location where the work is done. The customer-centric nature of multidimensional firms is enhanced by treating clients as profit centers (Galbraith, 2005) and by listening to them for the purpose of discovering service opportunities (Wiessmeier, Axel, & Christoph, 2012). Economic gain is created by pursuing unique location-specific market strategies, by integrating product and service offerings for maximizing customer profitability (Amit & Livnat, 1988; Armour&Teece, 1978), and by making the relationship *sticky* through optimized complexity and interdependency.

The case MNE operates in an industry that is networked. Consequently the center of innovation has shifted from the company to the network in which it operates. The network flourishes when it exists in a state of deep collaboration, cross-pollination, and concurrent engineering. This network develops value-based solutions in parallel exceeding time to market requirements (Grossman, 2005). Additionally, growth synergies can be achieved through alumni relationships within the industry-wide network. The exploitation of available market knowledge then becomes more critical than creating personal knowledge. Knowledge can be easily obtained from the network if it is not locally available. Organizational constructs must align with this environmental constraint and facilitates the exploitation of network-based knowledge resources (Drucker, 1992; Goold&

Campbell, 2003). Collaborative knowledge workers are increasingly valuable due to their collective influence on profitability opportunities in a multidimensional firm (Bartlett & Ghoshal, 1993; Prahalad & Hamel, 1990), and especially in a firm with a structure that requires collaborative arrangements (Contractor & Ra, 2002; Inkpen, 1997). The case company desires that knowledge workers are attracted to their firm, as they see that it is an opportunity to increase their personal market potential within the industry network (Drucker, 1992; Florida, 2004; Rosen, 2004). Managing the chaos found in these networks is the current opportunity for competitive advantage in an MNE.

## **II. Quality of the Research**

Creswell (2014) describes validity in qualitative research as being the determination of whether the findings are accurate from the standpoint of the author, the participant, and the readers of an account. In this case, language and meaning are the data. Creswell (2014), in parallel with Lincoln and Guba's (1985) approach, offers qualitative researchers eight possible strategies for checking the accuracy of findings; triangulation, member-checking, rich descriptions, clarification of bias, the use of negative or discrepant information, prolonged time in the field, peer debriefing, and the use of an external auditor. The author selectively used these strategies to ensure data validity with a focus on triangulation, peer debriefing, and member checking.

Endogenous validity refers to the validity of established causal relationships (Yin, 1994; Lamnek, 1995) or internal logic of the research (Punch, 1998). This was achieved by establishing a clear thematic focus that guided the case selection, abstracting and comparing, conducting peer reviews of causal relationships, and by having an open and comprehensive explanation building. A thematic focus was evident in a clear definition of an overarching research theme (cross-unit synergies), a narrowing research focus (operative synergies), and a specific research question (the sustainable realization of growth synergies) along with a compatible case selection in which the constructs of interest could be discovered. Continuous abstracting and comparing (Strauss & Corbin, 1990, 1996) occurred as the author continuously compared data sets to build higher order constructs, preliminary results to emerging data to confirm or refine results, and observed causal patterns within the existing literature. This improved the validity of causal relations (Yin, 1994). Peer reviews of causal relationships were discussed with research colleagues for the purpose of capturing and testing additional perspectives based on experience in the field. Additionally, it enabled the validation of internal consistency and theoretical relevance of the author's arguments. The final technique for internal validity was through open and comprehensible building of explanations and causal relationships. The results were documented in such a way that the reader could reconstruct the causal relationship (Mayring, 1996). Openly, the author indicated initial ideas, deduced assumptions, and challenged potential inconsistencies.

Exogenous validity refers to the generalizability of research results critical for robust theory development (Sutton & Straw, 1995; Weick, 1995) and depends on the research approach (Yin, 1994). Single case study empirical findings are difficult to generalize. Yin (1994) emphasizes that case studies do not allow for statistical generalization. More specifically, it is difficult to make inferences about a population based on empirical data collected in a sample. While issues of generalizability from case studies is severe (Denzin, 1989; Yin, 1994), single-case studies are recognized to be substantial from an evolutionary perspective (Stake, 1995). Single case studies can also provide new ideas and new thinking paradigms. They can help modify existing theories by exposing gaps and helping to fill them. There are several facts about this study that support the author's conclusions that the findings and propositions will be at least somewhat generalizable. Several of the constructs can be confirmed as being present in existing literature, indicating general theoretical relevance of the research (Eisenhardt, 1989). The findings were confirmed through consultation with participants, who are operationally capable with varied experience in the industry, suggesting the potential transferability of the claims. Finally, the findings were somewhat generalizable due to the continuous comparison of similarities and differences within case items across different levels of analysis.

Reliability refers to the possibility that researchers can replicate the research activity and produce the same findings (Eisenhardt, 1989; Yin, 1994). A challenge for this replication is the attribute of qualitative research, in that it is bound to the context in which it is conducted (Lamnek, 1995), including time. Reliability in qualitative studies is best served by presenting sufficient information so that the reader can draw his/her own conclusions (Yin, 1994). The author attempted to ensure reliability through the explicit disclosure of the research design, including a detailed description of the research process, case selection criteria, interview guide, and methods for collecting and analyzing empirical data.

### **III. Data and Analysis**

The purpose of this qualitative phenomenological research study, using Moustakas, (1994) modified van Kaam method, was to explore the real-time experiences of stakeholders, or co-researchers, as they lived and influenced events occurring around them. Awareness is a transient experience (Freeman, 2000) that may involve exerting influence, letting go, and redirecting energy and attention (Depraz, Varela, & Vermersch, 2003). It also involves being present physically and mentally in daily life. Stakeholders have to anticipate events, make sense of existing environments, and exert influence over future trends. Weick (1995) suggests that sense-making is a retrospective cognitive process that explains unanticipated events. He also suggests that events in a socially-created world both support and constrain action. Weick, Sutcliffe, and Obstfeld (2005) later suggest that individuals form both assumptions and conscious anticipations of future events. By examining sense-making and the development of mental models through actual lived, shared experiences, this study captures the subjective processes that have been largely ignored in the context of the connection between organizational design and growth in a multi-unit firm. Using the experience of stakeholders, the author presents a conceptualization of how individual participants in this study made sense of their lived experience. This was an ongoing process for participants as they refined their understanding of lived experiences and established new equilibriums.

Each section of the study included individual textual descriptions as well as composite descriptions concisely oriented and illustrated in a theme map structure. Moustakas (1994) suggested that the integration of textual and structural descriptions into a composite description, such as a relational table, is a path for understanding the essence of an experience. The composite description is an intuitive and reflective integrative description of the meanings and essences of a phenomenon, of which the entire group of individuals is making sense. The participants create meaning through their awareness of the environment, reflection on their experiences, consultation with others, focused response to an enquiry, and iterative refinement to these enquiries.

### **IV. Coding**

Data collection was facilitated by an interview protocol with specific questions oriented in a sequenced schema. Participants were solicited as volunteers from a pool of leaders based on a willingness to share information about the transformation of the case company division. Each volunteer co-researcher participated in the changes personally. Following each question, the participants' response was determined to be linked to the question asked and was determined to be meaningful prior to continuing. An answer could trigger a clarifying question, or a question formed to solicit a more fulsome answer, if needed. The additional information modified the answer and once again was determined to be fulsome or not. The data was added then to the data sheet and coded. Sub-code themes were also determined and grouped by code and sub-code. The data was surveyed by the author, who, due to personal experience, was able to apply an *analysis for good* (ANOG). Slight modifications were made as needed to reduce the noise in the data and ensure completeness and clarity. This was accomplished by consolidating like data points and simplifying others by stripping out noise and redundancy in the answers. The data was then re-sorted and generalized through categorizing. A pivot-table was used to extract themes in the wording. The curated raw data was then posted in a table. In some cases most of the themes were unique, in which case a table was not used. From this data, dependencies, relationship, and the sequence of events were determined and organized into a theme relationship map. In some cases the data collected appeared as though the participant was confused about the question. In these cases, the author followed up with the participant and then added the newly acquired information to the raw data previously collected.

The raw data was collected from each participant for each data domain and sub-domain in the sequence in which it is presented in this chapter to promote a progression of thought. The data is separated into exogenous and endogenous domains as well with selected focus in both areas. In some cases, like roles, the participants offered information on themselves while commenting on data provided by their peers. Patterns that emerged in the data are presented as textural responses (what happened), structural responses (how did it happen), or composite descriptions (what the group experienced). Data responses that occurred most frequently within the theme category were given more significance and were typically mentioned first. Data was interpreted into theme patterns. These were broken into themes and then concisely into propositions, or findings of the study. Data items that referred to individuals, functions, line of business, locations, systems, or company names were obfuscated, eliminated, or given a pseudonym. The propositions, or findings, were formed and listed numerically. Within each proposition, a two-word summary was formed along with a statement that sums up the finding. For example, a central theme, norm strategy, or trigger may have emerged from the data as a result of coding. This data could then be categorized or filtered through the constructs being discussed that may include the strategic frame, horizontal strategies, or a narrowed scope as examples. This was the beginning of the theme

map, or the outermost layer. The layers could then be elaborated on by breaking the outermost layer into sub-layers until it was reasonable to stop. This theme map was created to better describe the themes in the data and to show relationships and sequences between unique data items.

**V. Client diagonal**

The diagonal client dimension interacts with clients from a sales and operations perspective as per the figure below. The role of those who our *outward* facing is outlined in three categories, each of which is profitability oriented. Synergy is also clear in the figures, as collaboration between the parties indicated is necessary for the realization of profitable growth. The role of each entity is listed below their name. The responsibilities are shared between them in a collaborative way, as indicated between the sales and operational entities. These themes emerged in the data when MDD leaders were asked about the roles of each diagonal support function. A total of 73 themes emerged from the data with regard to five roles. One role was the line of business (LOB) lead. This is the person who is in charge of a set of products. The second is the account director (AD), who manages the client from the operations side of the business. The third is the client service representative or project manager (CSR/PM). This person manages the work through the facility and connects with the supply chain up and downstream. The fourth is the technical project manager (TPM). The person is technically skilled in the product and the workflow. The fifth person is the account manager (AM). This person manages the client on the sales side of the business. The last person is the sales manager (SM). This person is primarily in charge of bringing in new business or clients.

Sustaining the profitability of an existing client is reflected in Figure 2 below. In this case the revenue stream and its associated profitability need to be sustained. The LOB lead is tasked with making sure that service issues are resolved for the client in such a way as to not compromise profitability. The AD is primarily responsible for communicating the general status of work to the client. The AD also monitors performance levels and communicates internally and externally as needed to course-correct. The CSR/PM is responsible for managing projects through the workflow. This may include dealing with issues and exceptions proactively, as well as reactively depending on their ability to discover potential problems. The CSR/PM is also typically responsible for updating the ERP with status-related information. The TPM has the technical information at hand with regard to product, workflow, and infrastructure. The TPM optimizes the workflow prior to introducing new product and while product is running to ensure profitability. The TPM also introduces new technologies to improve processing efficiencies and reduce waste. The data suggested that AMs are best at seeing changes internal to the client. These changes may enhance revenue opportunities through proactive actions. It was also expected that AMs know decision makers in higher positions at the client. The synergistic tasks include activities regarding the budgeted portfolio, producing the weekly forecast, hosting the monthly review, acquiring a spend outlook from clients, escalating issues and opportunities as needed to those who can influence the situation for the better, updating clients regarding the company’s changes and capabilities, gaining and disseminating valuable client feedback, optimizing the ability to charge for overages without retribution, resolving issues that produce negativity in the relationship, conducting informative periodic meetings with clients, taking the temperature of critical personalities, managing the rates and their structure, and discussing trend deviations from expectation so as to take a proactive position. These synergistic tasks are best executed with a high level of collaboration which is conducive to an MDD design.

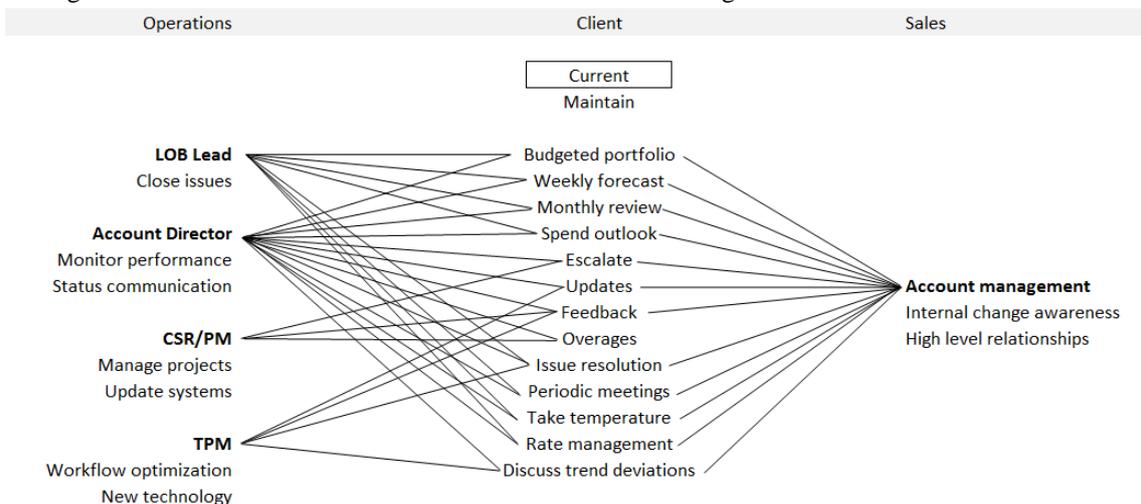


Figure 2. Maintaining current client.

This figure maps maintaining current clients as a theme category into descriptive and related sub-groupings.

The second way that an MNE can increase profitability exogenously is to assist existing clients to experience growth. Leveraging existing knowledge and talent for additional revenue is highly synergistic and therefore, profitability enhancing. In this case the data suggested that the LOB lead is critical for closing the deal, validating the pricing, dealing with issues, and agreeing with the validity of the rate card structure. The AD needs to monitor performance for issues and provide status on the fulfillment of the new additional work. The CSR/PM can help to embed pricing structures in the ERP system so that they can be exploited with the new work. Getting this right from the first invoice is important for the brand. The CSR/PM staff may also see opportunities for growth that should be passed on. Exploiting these opportunities in existing supply chain BUs is highly synergistic. The TPM provides subject matter expertise to the workflow design enhancements needed to accommodate the new volume or product. The AM in this case needs to cross-sell as well to exploit existing workflows. As clients discuss upcoming opportunities, the AM should relay these to the right parties. The sales tools that are used to measure the revenue performance of the client are the responsibility of the AM. This should include a *funnel* that indicates the pending work type that is in the pipeline for their client. Knowing the performance and rates of competitors helps the AM know pricing positioning. The synergistic actions shared between these functions include the approval of the rate structure for the new work, the establishment of pricing strategy, education of the client and internal operations on requirements, obtaining feedback on expectations prior to and during expansion, discovering new opportunities to augment client income to the company, fulfilling requests for proposals (RFPs), updating the client as needed on status of the ramp-up, interpreting the impact of megatrends and life-cycles on the business, upselling other services to augment revenues, and discovering services that are not being exploited by the client, but that could be leveraged. Again the MDD design enhances the collaboration of these functional areas to encourage increased revenue and profitability from existing clients.

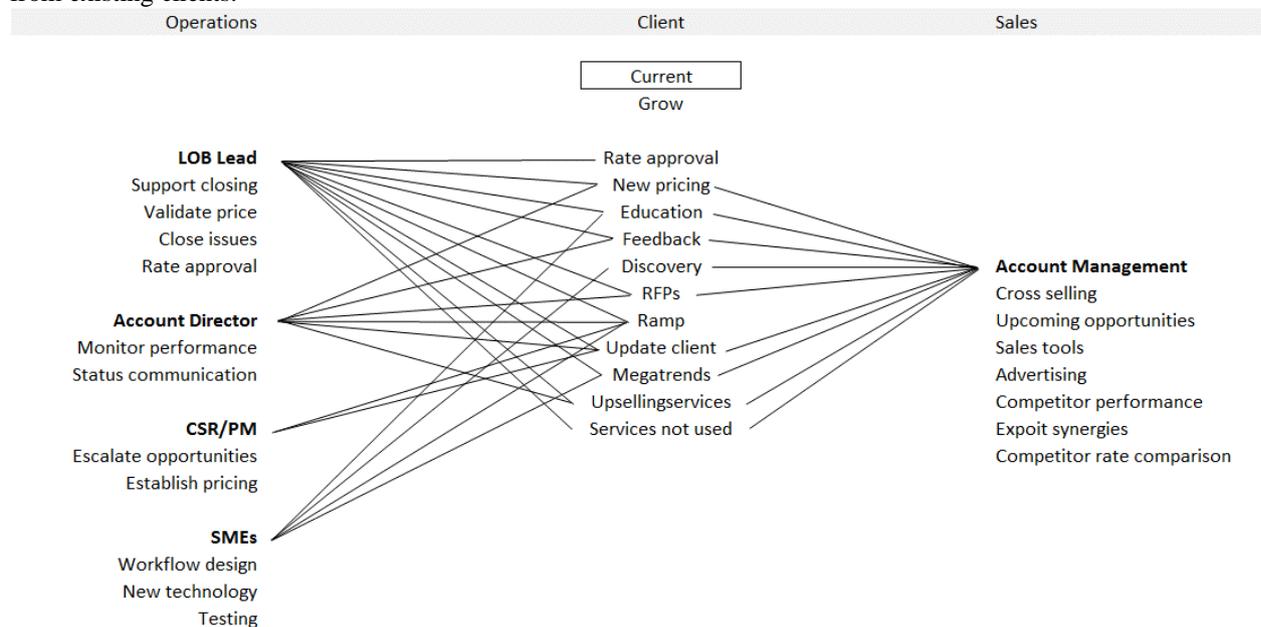


Figure 3. Growing current client. This figure maps growing current clients as a theme category into descriptive and related sub-groupings.

The last use case is related to enhancing profitability from new clients. This is illustrated in Figure 4 below. In this case the LOB lead, according the data, needs to push for closure on the deal. If there are any unresolved issues they also need to be closed. The LOB lead is responsible for the LOB P&L and so must approve the rates. The AD is charged with making sure that the client has been integrated fully. The status of the on-boarding process needs to be communicated as applicable. The CSR/PM is also responsible for the integration of the client by making sure that orders begin to flow. When issues are discovered regarding pricing, they must be escalated. With any new business, workflows need to be determined as part of the pricing activity. The TPM is knowledgeable and can convey this along with the testing to validate that the workflow makes perfect product. This may require the introduction of new technology to increase workflow performance. The AM can assist with acquiring new clients by sharing leads with SMEs. The AM can assist with cross-selling to other parts of the supply chain to close the deal by enhancing or bundling it. The existing contact list that the

AM has may be helpful for referrals. The AMs should also be involved in the penetration strategy. The last function is that of the SMs. They search out new clients and help to cross-sell to optimize revenue acquisition from prospective targets that want a *one-stop-shop* for products and services. The sales tools should point to opportunities and be available to report on trends and the pipeline with the chance of occurrence. The sales team can exploit supply synergies by selling into existing capabilities. The client may be attracted to the company through strategically placed advertising. The SM is critical for obtaining competitor based information. This includes a variety of data points important for analysis, including rate cards. The SMs establish and maintain fruitful relationships with clients. They should be seen as opportunities for education as well. The list of synergistic opportunities in this case includes engineering opportunities to create new sales, initiating conversations with decision makers, realizing the support needed to acquire a new sale, closing opportunities before they disappear, rigorously pursuing contacts, approving any new rates and their structure, rolling out the pricing once it is agreed to, on-boarding the new client physically and financially, establishing new pricing line items and rates, listening for feedback during the transition, discovering new opportunities in the form of technology or client, embedding the new customer into the company’s service culture, completing competitive RFPs that are profitable, and managing the volume ramp-up for the clients products. Collaboration in a MOS structure is conducive to attracting and capturing new revenue.

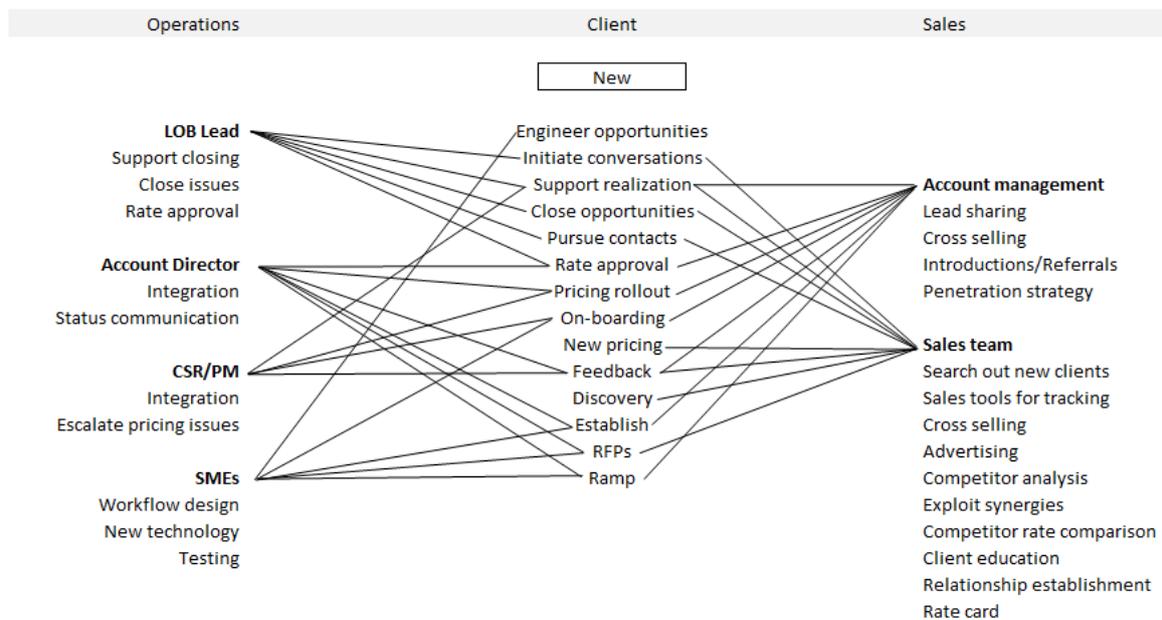


Figure 4. Growing new client. This figure maps growing new clients as a theme category into descriptive and related sub-groupings.

In summary, the data suggests that the MDD structure is conducive to maintaining existing clients, extracting new revenue from existing clients, and acquiring new clients. The requirement for collaboration in each of these three cases validates the need for a nimble and effective structure. Distinct positions have responsibilities and there is a segregation of duties; however, all members of the MOS can participate in sustaining and creating profitability. The following propositions summarize the key findings of this section:

**Proposition 1**(duty segregation): Role definitions in an MOS are required to ensure accountability; however, synergistic tasks are shared optimally and selectively by all outward facing employees to maintain the profitability of existing revenue streams.

**Proposition 2**(synergistic tasks): Synergistic tasks are shared by functions critical to the execution of these tasks and the associated rewards.

**Proposition 3**(profitability super-additive): Enhancing the revenue from a client through additional income streams that are synergistic is a profitability super-additive.

**Proposition 4** (collaborative strengths): Operations and sales achieve mutually beneficial profitability goals when they collaborate around their strengths, filling the company's pipeline with sustained corporate advantage.

**Proposition 5** (ideation-ramping): Acquiring new business revenue requires collaborative action, starting with sales lead ideation and ending with the achievement of billable volume ramping-up at optimized margins.

## VI. Sector megatrends

In any business environment megatrends affect the behaviors of dynamic markets. In this section the megatrends in the entertainment industry are exposed from the data and linked to consequences. These consequences impact the various products previously mentioned. With this understanding, a business like the case company can make changes to optimize profitability and avoid economic pitfalls. The MDD leaders contributed data that is reflected in the table below. This table identifies megatrends, their consequence to the case company, how important they are to achieving the company's desirable outcomes, and the impacts on profitability based on LOBs. Megatrends that are influencing an accelerated life-cycle decay require a different response than life-cycles that are still ramping.

### Market Observations

Megatrend	Consequence	Weighting	Profitability impact of LOB				
			LOB1	LOB2	LOB3	LOB4	LOB5
Adoption of file based assets	Infrastructure is good currently	3	DOWN	UP	FLAT	UP	N/A
	Volume implications on the infrastructure	2	DOWN	DOWN	FLAT	FLAT	N/A
	Existing systems are good but finite	4	DOWN	FLAT	FLAT	FLAT	N/A
	Large sunk cost into existing investment	5	DOWN	FLAT	UP	UP	N/A
	Skill sets have to change	4	UP	UP	FLAT	FLAT	N/A
	Training capability becomes more critical	5	UP	UP	UP	UP	N/A
	Physical has a strong based for training to move to digital	5	UP	UP	UP	UP	N/A
	Can leverage longevity and existing tacit industry knowledge	5	UP	UP	UP	UP	N/A
	Infrastructure investment for in-house facilities	1	UP	FLAT	FLAT	UP	N/A
	Increased competitive position due to existing infrastructure	5	UP	UP	UP	UP	N/A
	No need to rent machines	5	UP	UP	UP	UP	N/A
	Fewer facilities to service these needs	4	DOWN	UP	UP	UP	N/A
	Increased variation in workflows	5	UP	UP	FLAT	FLAT	N/A
	Increased need for robustness in quality planning	4	UP	UP	FLAT	FLAT	N/A
	Change in the need for security controls and systems	3	FLAT	FLAT	FLAT	FLAT	N/A

Replenishment workflows	Will trigger restoration demand from analog tapes	5	FLAT	UP	FLAT	UP	N/A
	Bundle deals on volume of work, reduced margin	2	FLAT	UP	FLAT	UP	N/A
Legacy/archival workflows	Leverage existing tools	4	UP	UP	UP	UP	N/A
	Capability is a competitive advantage	5	UP	UP	UP	UP	N/A
	Significant opportunity for volume and market share	5	UP	UP	UP	UP	N/A
	Systemic production floor scheduling	5	UP	UP	UP	UP	N/A
Emerging linear play-out for quick turn workflows	Mobile ingest facilities	4	DOWN	UP	FLAT	UP	N/A
	Invest in semi-automated systems to help with margins	4	FLAT	UP	FLAT	UP	N/A
	Increased capability regarding project management	3	DOWN	UP	FLAT	UP	N/A
	Competitive advantage of existing fast turn capability	4	FLAT	UP	FLAT	UP	N/A
	Premiums can be achieved with shorter turns	5	FLAT	UP	FLAT	UP	N/A
	Challenges capacity planning, schedule inserts	3	FLAT	FLAT	FLAT	UP	N/A
	Pooled capacity	4	FLAT	FLAT	FLAT	UP	N/A
	Dedicated capacity	4	FLAT	FLAT	UP	UP	N/A
	24/7 “always on” operation	5	FLAT	FLAT	UP	UP	N/A
	Large specification library	5	FLAT	FLAT	UP	UP	N/A
Evolve to support file distribution and localization	Parallel distribution in large volumes	5	FLAT	FLAT	UP	UP	N/A
	Enterprise wide increased revenue	4	DOWN	UP	FLAT	UP	N/A
	Linear linked as an entry point for other revenue pipelines	4	FLAT	UP	UP	UP	N/A
	Linear dependency to upstream schedules	3	FLAT	FLAT	UP	UP	N/A
	Increased exaggeration of demand	3	FLAT	UP	FLAT	UP	N/A
Dependency on ERP system and schedule transparency	4	UP	UP	FLAT	UP	N/A	

Regional opportunities	Talent export to these regions	3	DOWN	FLAT	FLAT	FLAT	N/A
	Penetrating new markets	4	FLAT	UP	FLAT	UP	N/A
	Ahead of the competition, emerging competition	4	FLAT	UP	FLAT	UP	N/A
	Price compression to follow	3	FLAT	UP	FLAT	UP	N/A
	Joint ventures	3	FLAT	FLAT	FLAT	UP	N/A
	Cultural implications	3	FLAT	UP	FLAT	FLAT	N/A
	Equipment drain	3	FLAT	UP	FLAT	UP	N/A
	Coordination effort	3	DOWN	FLAT	FLAT	UP	N/A
Clients reducing capabilities in physical media	Increased deliveries in digital	4	DOWN	FLAT	FLAT	UP	N/A
	Reduced client infrastructure	4	DOWN	FLAT	FLAT	UP	N/A
	Capture opportunities	4	FLAT	UP	FLAT	UP	N/A
	Limits in-house capability	5	FLAT	UP	FLAT	FLAT	N/A
Physical to file with image restoration	Revenue opportunity	5	FLAT	UP	FLAT	UP	N/A
Television restoration	Convert from analog formats to digital	5	FLAT	UP	FLAT	UP	N/A
	Up-conversions	5	FLAT	UP	FLAT	UP	N/A
Next day workflows for WW distribution	Capacity constraints	4	FLAT	UP	FLAT	FLAT	N/A
	Increased security requirements	3	FLAT	FLAT	FLAT	FLAT	N/A
	Dependency in the supply chain for services	4	FLAT	FLAT	UP	UP	N/A
Next day workflows for high profile TV shows	Increased security requirements	4	FLAT	FLAT	FLAT	FLAT	N/A
Physical media still has long life-cycle	Can leverage existing systems/knowledge/skill sets	5	N/A	N/A	FLAT	N/A	UP
	Time in life-cycle to improve on costs/offshoring	3	N/A	N/A	UP	N/A	UP
Cost pressures downstream	LOB5 is a loss leader that could be off-loaded to us	3	N/A	N/A	UP	N/A	UP

	Short runs are inconvenient to replicators, off-load to us	3	N/A	N/A	UP	N/A	UP
Multi-platform content demand	Variety of products will remain	4	FLAT	FLAT	UP	UP	UP
Competitors are struggling	Opportunity for consolidations	5	UP	UP	UP	UP	UP
Client in-house facilities are costly	Opportunity for single supplier scenarios	5	UP	UP	UP	UP	UP
Bundled access on LOB5	May attract volumes	5	FLAT	FLAT	UP	UP	UP
Lower cost configurations	More of the lower margin effort will be applied	3	FLAT	FLAT	UP	UP	N/A
Excluding high value components	Less of the higher margin effort will be applied	5	N/A	N/A	FLAT	N/A	N/A
Day and date positioning of delivery	Compressed schedules, stacked stock keeping units (SKUs) in WIP	5	UP	UP	UP	UP	N/A
	Shorter turn times	5	UP	UP	UP	UP	N/A
	Less repurposing of effort	4	N/A	N/A	N/A	FLAT	N/A
Limited digital delivery distribution first	Shift in peak season	4	FLAT	FLAT	UP	UP	N/A
	Delay in first SKU release	4	N/A	N/A	DOWN	N/A	N/A
Source deliveries will be digital	Linear workflows not needed	3	DOWN	DOWN	UP	UP	N/A
Flat volumes declining revenue	Margins are being attacked	4	DOWN	DOWN	DOWN	DOWN	N/A
Overall home entertainment revenue is flat	No expansion in the industry from volume	4	FLAT	FLAT	FLAT	FLAT	N/A
	Expansion would come from new formats	3	UP	UP	UP	UP	N/A
Increased product diversification	Requirements on skills and infrastructure	4	UP	UP	UP	UP	N/A
Increased requirement for quality and reliability	Performance receives high scrutiny	4	UP	UP	UP	UP	N/A
	Volume is vulnerable to any reliability issues	4	UP	UP	UP	UP	N/A

Increased pricing pressure	Increased cost pressure	3	DOWN	DOWN	DOWN	DOWN	N/A
	Requirement to off-load	3	N/A	N/A	UP	UP	N/A
	Risk based decision making on cost items	3	N/A	N/A	UP	UP	N/A
New emerging products	Low volumes associated with high R&D costs	4	N/A	N/A	UP	UP	N/A
New products may influence margins	Maximize profitability at introduction	4	UP	UP	UP	UP	N/A
	Consumes R&D capacity and reduces margin	3	N/A	N/A	DOWN	DOWN	N/A
Territory penetration	Increased volume opportunity	2	UP	UP	UP	UP	N/A
Going deep into replenishment reserves	Increased volume opportunity	2	UP	UP	UP	UP	UP
Component delivery vs. full package	Reduced revenue potential per title/SKU/Variant	3	N/A	N/A	N/A	DOWN	N/A
Last minute bulk order sales	Consumes capacity significantly	2	UP	UP	UP	UP	N/A
Interactive features will enhance revenue	Complexity for the effort needed to be watched	2	N/A	N/A	UP	UP	N/A
	Process development including QC	2	N/A	N/A	UP	UP	N/A

*Note.* In the Weighting subheading, the scale is 1-5, with 5 being the most.

*Table 1.* Megatrends and Consequences

The industry has gone through significant technical changes in the last few years. There has been a shift in volume from physical workflows to digital workflows. Volume expansion has come in the form of increased requests for physical to digital transfers and there has been a significant volume expansion on the digital side as well. Assets are now being delivered more frequently in digital formats, but replenishment driven orders leverage the existing inventory of physical assets. Consequently, a large sunk cost in infrastructure is being leveraged, however, there is a shift in training to new workflows as they have become more important. This significant market shift has required existing facilities that have inadequate digital capacity to invest in new infrastructure. This created a favorable situation for the company, as the allocated work gravitated to the available capacity. The adaptability of a MDD to changing workflows, aided by scalability, allowed for an easy transition. Additionally, physical workflows did not bottom out, but stabilized as sales efforts to run replenishment work were successful. This made up for some of the shrinking physical asset volume and allowed for other ancillary services to be sold.

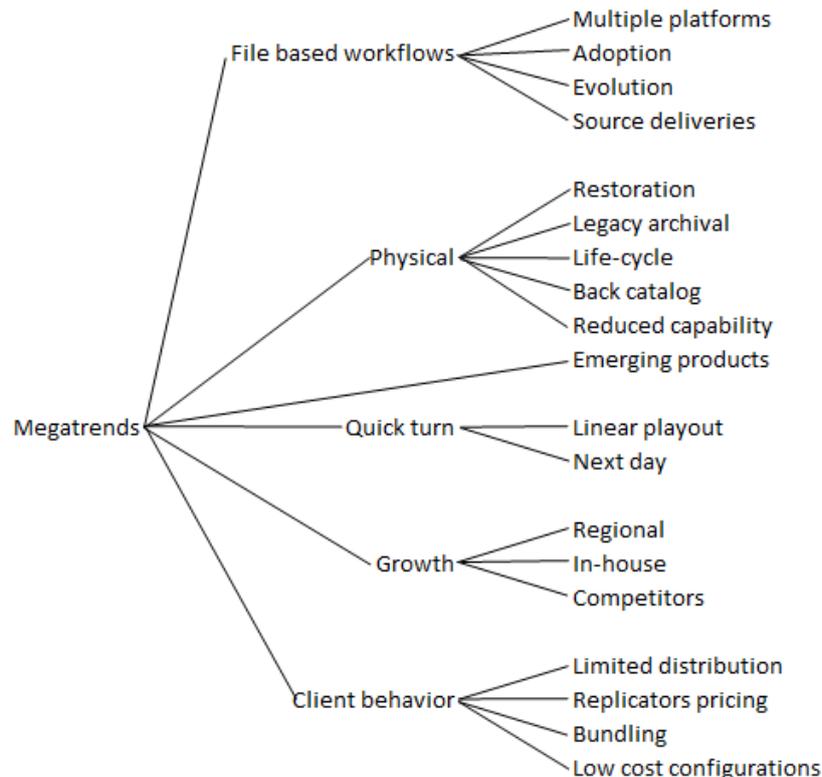
Legacy workflow capacity could be leveraged as the tools were mature. This capability was a competitive advantage due to capacity and an extensive range of workflows that drove consolidation in the industry within the company. Market share was increased and operational performance met client expectations. Scheduling efficiency was augmented by a shop floor system that was part of the ERP. Expansion plans for discovery of other library type work was assessed and aggressive sales plans were deployed.

Another competitive advantage came from the ability to turn orders around quickly. An investment in semi-automated systems augmented the physical shop floor. The ERP system allowed for efficient scheduling and management of bulk orders. Premium pricing was associated with rush orders, adding to the ability to assign overages to purchase orders. The ability to execute these orders without incurring additional cost augmented profitability. A supply chain that is *always on* is available to clients when they have the need. In some cases, functions were pooled to enhance capacity. In other functions, the capacity was dedicated to maximize throughput of predictable tasks.

Global workflows evolved so that the network could be leveraged. The pooled capacity made it possible to accept large orders and order with quick turnarounds that could be inserted into schedules. Physical workflows were leveraged as entry points to other workflows. An ERP system that allowed for transparency across the supply chain allowed for better capacity planning within all functions. Talent within the enterprise became available for territory expansions. New facilities were seeded with experienced workers who had the opportunity for leadership succession in expanding markets in new regions. Existing equipment was redeployed and made available to expanding markets avoiding capital expenditure.

Even with the preservation of physical workflows by sales strategies, digital workflows experienced increased volumes. In-house facilities experienced pricing pressures and became less profitable. The company's workflows were able to create complex deliverables and deliver them quickly. The user trends were migrating to more complex workflows leaving the company in a competitive position. In addition, the variety of products increased and new products were being introduced regularly. Strength in R&D allowed for workflow creation and component performance. New products allow for profitability opportunities especially at the beginning of the life-cycle.

Challenges surfaced with the velocity of the work. Performance increased in importance as the opportunity to rework failures diminished significantly. Any issue was escalated as volume increased. Additionally, security requirements increased as content significance increased. Content leaks and information about storylines were important to content owners. Reliability performance came under significant scrutiny as performance and tool maturity could be leveraged and enhanced. A theme map for megatrends is shown in the figure below.



*Figure 5.* Megatrend theme map. This figure maps megatrends as a theme category into descriptive sub-groupings.

In summary, the data suggests that megatrends that are external in origin can significantly change the profitability capability of an organization. The organization needs to be able to shift and evolve while maintaining profitable free cash flow. Typically a shift will precipitate a need for capital investment; however, synergistic consolidation augmented by system and technology enhancements can minimize capital requirements. Other shifting may relate to clients deciding that they need different services, that they need products faster or in a serially customized way. Growth may happen when competitors take market share unbeknown to the company. Some new configurations may cannibalize existing revenues. Furthermore, clients may want their products in a different configuration, beneficial to them but less profitable to the company. The timely response of the vendor is critical for sustained corporate advantage. The following propositions summarize the key findings of this section:

**Proposition 6** (nimble organization): A nimble organization that can redeploy resources and satisfy clients through innovative sales initiatives is able to ride life-cycles longer than unprepared competitors.

**Proposition 7** (dynamic scaling): Dynamically scaling capacity in a global production network allows for the successful completion of bulk work over a short duration as a competitive advantage.

## VII. Revenue

Data that related to revenue was coded from the raw data into a representative table, as illustrated in the table below. The themes that emerged regarding revenue included a number of topics that compromise profitability. For example, there are several value-adding steps that customers are not charged for.

*“[Function] for [BU] is being done at cost, so it has a negative impact on [function] margin... I will start the discussion to see how we should make this visible in [the] financials.” (F45)*

Additionally, internal departments may ask for services at cost that they apply a margin to and deliver. The department that did the work experienced no margin. To remedy this, the department that does the work may apply a *cost plus* billing model that does not negatively impact the average margin for the business unit. There may be several non-value adding steps that incur cost but not revenue. For example, the storage of assets and delivery activities typically occur without charging for the service. In the case of bundling, services are consolidated, but the revenue may not track to the effort needed to execute the value-added activity. Eleven themes emerged from the data and are represented in the table below.

Themes
At cost activities
Charge clients
Charge for off-site storage
Combine function revenues
Contract negotiated rates
Cost follow revenue
Cost/Revenue is with product
Delivery fees
Not charging for services
Revenue to other
Cost plus application

Table 2. *Revenue themes*

The revenue theme map in the figure below includes data that relates to profitability *stinkers*, revenue recognition, contracted rate review, cost vs. revenue analysis, profitability mapping review, and a non-billable line item review. The MDD leaders indicated that it would be necessary to review their purchase orders to find the profitability stinkers. These are situations where effort is expended but the pricing does not coincide with the effort. In some cases the effort is high and the value add is low. This could be a target for effort reduction through streamlining or work shifting. If work is being done below cost and a margin is not possible, it might be

worth it to consider making this activity a *loss leader* (service offered with a negative margin that stimulates profitability elsewhere) for another service not realized, or it might be profitable to consider not performing the task at all. Revenue recognition is difficult in bundling sales arrangements. The challenge is the allocation of the revenue fairly. Even when this is done fairly, it may be realized in a function at a margin less than what that function typically experienced. This then lowers the overall margin as volume increases and is not an incentive for managers to prioritize. When labor is shared, the work that is performed by this labor does not typically experience the revenue that their labor brought into the organization. The sending business may only be allowed to transfer the cost of the labor. Sometimes a cost plus model is used, where the plus part is a percentage above the cost of the labor. This negotiated percentage likely will not contribute to the profitability of the business unit because it is not typically as high as the margin that would be achieved without the work. Revenue may also be derailed to *other* and disappear, perhaps to fund another area. MDD leaders suggested the contracts be reviewed for operational restrictions. In some cases additional negotiation should have happened, as some requests incur a burden on operations that is not reflective of the value add to the client. Where cost did not follow revenue there should be a correction to align them. Otherwise, reporting, analysis, and performance ratios are inaccurate.

*“Another way to confirm this observation: revenue / labor dollar is very high for [location 1] but much lower for [other locations]. Again, opportunity will be at [location 1] and [location 2].” (F53)*

The measure of profitability should be attributed to a deliverable product so that the LOB being analyzed will provide a truthful picture of product health. MDD leaders indicated that in some cases deals were made or pricing structures created that made some line items zero cost to clients. With margin erosion, the contribution of one line item with a good margin can no longer carry the line item with no charges. Some examples of this are various services, delivery, and storage. Where the margin has eroded, there should be consideration for charging for line items that previously were free.

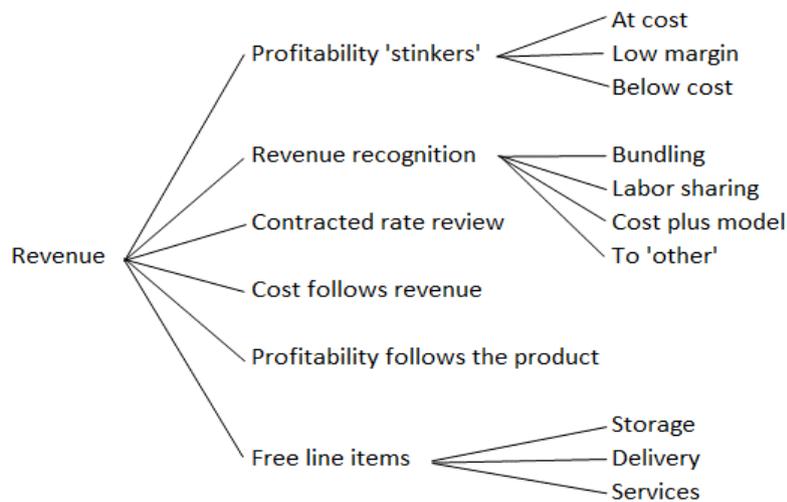


Figure 6. Revenue theme map. This figure maps revenue as a theme category into descriptive sub-groupings.

In summary, the data suggests that MDD leaders are aware of projects that are challenged to produce a profit. These projects are sidelined and not given priority attention unless the profitability of the work can be altered through an alternative revenue recognition model. Revenue-challenged projects can be proactively avoided if stakeholder involvement can be achieved. These challenges typically are found in line items that are either misunderstood or given away through manipulation by the client. The following propositions summarize the key findings of this section:

**Proposition 8** (pricing effort): The effort needed to establish profitable pricing may not have been expended in cases where free line items exist or price levels are near break-even.

**Proposition 9** (volume accommodation): Pricing strategies may result in margin erosion that may be more than accommodated for by profits from volume.

**Proposition 10** (prioritized profitability): When revenue is reported together with cost, LOB analysis is possible, leading to prioritized profitability enhancements.

### **VIII. Contributions to Theory**

The primary contribution of this article is new empirical insights about the effects of diagonal client scaling on growth realization in an MNE organized as an MDD. These results are, therefore, relevant to the achievement of sustained profitability and competitive advantage by focusing a multi-unit firm on business unit relatedness and strategic complementarity. Ten propositions were extracted from the participants instigated by a precipitated event that contributed to theory on the horizontalization of an MDD. These outcomes that influence change efficacy are described and useful for sustained corporate advantage.

The author anticipates that these propositions will stimulate further research as organizational behavior is significantly complex and situational. These observations are also meant to stimulate further thinking. By studying the distinctive features of client scaling in an MDD, the author hopes that interest has been sparked on researching the design and application of further more effective and efficient scaling techniques.

This research attempts to contribute to organizational theory by exploring an innovative multidimensional organizational design with the advantage of collaborative opportunity exploitation in a dynamic market. In the company case, the design includes dimensions that relate to products and services, geographic locations, support functions, and clients. Each dimension is not *flat*, as a layer might imply, but rather is intrinsically variable. For example, products within this dimension are different in complexity, volume, capacity consumption, quality rigor, seasonality, and sensitivity to penalty or liability. Within the support functions there is variability in team expertise and the nature of the support, as examples. Support could be present in the form of ERP enhancements or module creation, or storage, and the availability of workflow assets. There is variability in the client dimension with regard to size, rate structure, administrative load, *hunter vs. harvest* activity, and the quality of relationships. Geographic locations vary in culture, size, and mix of products used in local markets, further strengthening the idea of a dimension rather than a layer (Armstrong & Cole, 2002). This multidimensional organizational design is applied to a multi-unit business that includes a global value chain. The MNE must be competitively agile in its dynamic market while managing through an otherwise complex organizational construct. The author proposes a minimalist role of the corporate center with the addition of secondary work structures, or collaboration platforms, that exploit capabilities across business units (Wiessmeier et al., 2012). These lateral integrative mechanisms reduce costs that would otherwise be overhead in a traditional M-form structure.

The M-form has come into question with regard to its relevancy in modern MNEs (Bartlett & Ghoshal, 1993; Berggren, 1996; Ruigok et al., 2000). Even Alfred Chandler (1962), the economic historian from Harvard who documented the emergence of multidimensional organizations in the first half of the 20th century, suggests that structure must follow strategy to avoid inefficient results. In the 1970s there was interest in organizing MNEs along several dimensions in a number of publications that were concerned with the dynamic markets in which multi-national corporations operated (Ackoff, 1977; Bartlett, 1982; Coggin, 1974; Prahalad, 1980; Prahalad & Doz, 1979). The M-form design drives high employee costs, internal battles over resources, the lack of standardization, the lack of collaboration, and the loss of market opportunities contributing to tension about synergy exploitation (Strikwerda & Stoelhorst, 2009). This tension needs to be resolved, at least partially, through an organization design that involves multiple dimensions without exacerbating issues around resources and market opportunities. Furthermore, the structure needs to drive clarity and accountability which is an inherent weakness in matrix structures due to the disparate interests of multiple bosses (Galbraith, 2009). Further organizational design evolution is needed for moving MNEs from a resource-centric industrial economy, focused on exploiting tangible physical resources, to a customer-centric, service-oriented economy that is focused on exploiting intangible knowledge-based resources (Davis & Thomas, 1993; Grant, 1996; Markides & Williamson, 1994).

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