

Business Model Innovation Approaches for Managed Business Services: A Research Perspective

Ramamurthy Venkatesh¹ and Tarun Kumar Singhal²

¹Faculty of Management, Symbiosis International University, Lavale, Mulshi taluk, Pune - 412115, Maharashtra, India; venkatesh@sitm.ac.in

²Symbiosis Institute of Telecom Management, Constituent of Symbiosis International University, Mulshi, Lavale, Pune District - 412115, Maharashtra, India; tarun.singhal@sitm.ac.in

Abstract

Objective: In this article a selection of recent research papers from a range of recognized journals are reviewed to understand the recent trends and research gaps so as to develop possible research pointers that can integrate subject areas of Business Model Innovation, Open Innovation, Managed Services and Service Innovation. Since the primary interest of our research is around Managed Business Services, especially those digitally enabled service offering using IT as a horizontal enabler across the organizational functions, journal papers that are published in the recent decade starting 2008 were selected. Open innovation strategies for business model innovation are of great interest in research fraternity suggesting such openness can benefit organizations at various depth and breadth. **Methods/Statistical Analysis:** Based on the context of research and select related keywords, a conceptual model was devised to search and segregate the extant literature. Open innovation strategies, business model challenges, service infusion, IT and digitally enabled managed services models were considered as key themes of the collected articles. Appropriate inclusion and exclusion criteria and search strategies were applied to identify relevant articles based on sub keys and their significance to the research content. Comprehending the abstracts, key findings and future research potential of the select articles were tabulated. Findings of such exercise were used to single out statistically relevant and appropriate context to fit in the proposed research model. **Findings:** The extant literature as we found are more generic than focusing on service organizations or service providers' business models who are engaged in providing digitally enabled managed IT services. Since there is not much written about how managed business services models fit in this context, there is scope for probing what are the dimensions that such managed services operators can adopt by embracing open innovation. **Applications/Improvements:** This paper is an exploratory attempt to highlighting the linkages of open innovation and service innovation approaches for managed services and promoting the construct of managed business services moving away from contemporary managed IT services.

Keywords: Business Model Innovation, Customer Co-Creation, Digital Enablement, MSP (Managed Services Providers), Service Innovation

1. Introduction

Innovative and dynamic business models with data driven management approach have become the cornerstones of corporate success in recent times. This fact however cannot be generalized to all business entities with varied sizes, structure and value propositions. Despite the growing interests and buzz around business model innovation, most of the organizations are finding it difficult to imple-

ment new business models due to inherent challenges and barriers, both internally and externally. Innovation in business models are not just about attempts to process innovation or product innovation but applying to innovate entire business model in conjunction with various success factors. In other words, process innovation and/or product innovation alone cannot promote successful business model innovation. Innovation per se has evolved into more distinct and broad approach as open

*Author for correspondence

innovation with more external actors and information flows deviating away from the older approach of closed innovation which is more of an internalized approach with inward looking perspective. Open innovation strategies applied for innovating business models are being explored by academic researchers in terms of business model design parameters, operational aspects and resultant value chains such as market based, network based or collaborative structures, extent of technology exploration and/or exploitation and related dimensions. Nevertheless, such generic studies need further extrapolation to address many of the service infusion and managed business services model challenges. This paper promotes a new construct of managed business services rather than contemporary managed IT services. We intend to address some of the related challenges and the way forward by analyzing the current research trends and constraints that could possibly evolve in to a open business model framework applicable to managed business service providers' who are engaged in digitally enabled services and solutions.

2. Managed Services and Business Model Innovation

Service infusion and servitization as a combined concept has become a compelling global force to reckon by all business organizations for adding value to their core products and solutions through services. With rapid adoption of digital enablement and information and communication technology solutions across horizontal value chain functions, companies are increasingly offering most of their solutions as bundled service packages. As defined by Gartner, managed services are the practice of outsourcing key and supplementary functions and management responsibilities to other parties as a proactive and strategic method for improving operations and cutting expenses. Across industries, it has become a norm for many business entities that are moving toward managed services business model. This can be seen as their strategic option towards sustainable competitive advantage so that they can differentiate themselves from their competition while scaling up their service offerings using digitally enabled platforms and solutions. In recent times, there are streams of academic literature and industry reports that are attempting to conceptualize the vital

characteristics of such business models and service infusion approaches.

2.1 Conceptual Model for Analyzing the Literature

To further study and conceive a pragmatic open model business framework focusing Managed Services Providers (MSP), a conceptual research model depicting the linkages as in Figure 1 is proposed. This proposed research model shall be the basis for analyzing extant literature focusing the linkages of Business Model Innovation (BMI), Open Innovation (OI), Service Innovation (SI), Managed Services models and customer co-creation.

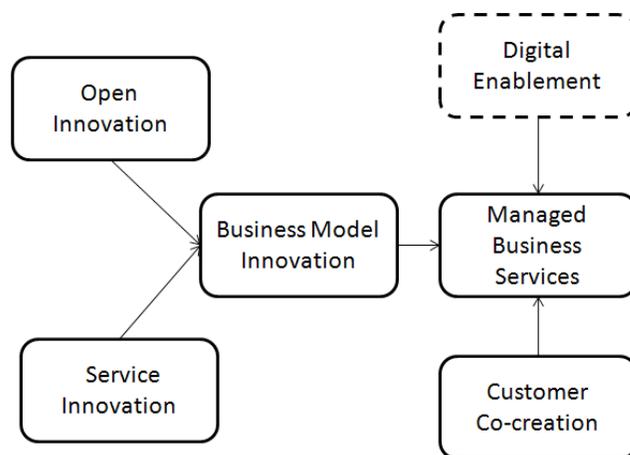


Fig. 1. Conceptual Research Model

Figure 1. Conceptual Research Model.

Linking BMI to Research Model

In the words of Henry Chesbrough, the barriers to changing the business model are real and tools such as maps are helpful, but not enough¹. Business modeling approach using tools such as Osterwalder Business Model Canvas (BMC) or IBM's Component Business model shall provide an effective way to explicitly visualize and organize underlying business processes. However, to counter the barriers and exploit the opportunities, business leaders must supplement this modeling approach with continuous application of experimentation, effectuation, and organizational leadership. In line with business model theories, as reported by², important themes are forming around business model innovation concept, with distinct focus on business model itself as a new unit of analysis, offering a systemic perspective on how to "do

business”, encompassing boundary-spanning activities – activities by the firm in focus and other external actions that are needed for value creation as well as value capture.

Linking Open Innovation to Research Model

Open Innovation (OI) applied to business modeling approach is relatively a new field with increasing interest in the past decade. Since the publication of³, conceptualizing open innovation, there has been substantial interest in research journals about the OI approaches. Enhancements have been made to OI theory elaborating the impact of outbound knowledge flows contrasting them with traditional closed innovation approaches and business model frameworks along with theories of strategy and economics.

Recent research papers by research authors including⁴ have opened up the importance of outbound and external flows of information for open innovation approach to business models. Three key pointers such as (a) novel and better approach to measuring open innovation (b) better understanding the appropriateness and relevance of enabling open innovation (c) level of integration efforts to closely aligning the open innovation with established management and economic theories have emerged as per⁴. This opens up diverse pathways for new and fundamental theoretical discoveries with further possibilities for empirical research about open innovation in service provider organizations.

Linking Service Innovation to Research Model

With detailed analysis and trends in many organizations that include manufacturing companies,⁵ has conceptualized and suggested a framework for moving from product to service approach. This service innovation approach has spurred research interests for studies regarding high value unified responses and expectations from various customer segments. However, it may be noted that such “servitization” of products and solutions calls for need of organizational capabilities that are to be developed internally, externally or in a mixed way. Based on such premise,⁵ have highlighted certain propositions for managers to select and adopt to one or more the four approaches such as Seller of after-sales services, Integrator of after sales solutions, Seller of life-cycle solutions, and Orchestrator of total solutions. The same approach is further extended by incorporating the horizontal and vertical dimension of organizational capabilities for service delivery into four distinctive types: (A) vertical after-sales service networks,

(B) horizontal outsourcing service networks, (C) vertical life-cycle service networks and (D) horizontal integration life-cycle service networks⁶. In the same breadth, Service Dominant perspective (S-D Logic) as promulgated by Lusch has also gained momentum in exploring the actors of service ecosystem and their relations with the service exchange platform for value creation and service innovation⁷.

Linking Co-Creation to Research Model

Co-creation, which is developing as a new paradigm in the management literature, allows companies and customers to create value through interaction⁸. Using multidimensional scaling map and branches of related theoretical perspectives have summarized that co-creation is a significant paradigm and there are relevant theoretical statements which have been developed and applied to a diverse set of empirical contexts for creating customer value through service innovation. In⁹ have examined the trends linking service innovation and customer involvement, particularly in emerging markets as they see there are unique conditions interesting to researchers and companies in studying and promoting service innovation using ICT and digital technologies⁹.

3. Literature Review and Research Gaps

With the setting up of research model and establishing the preliminary linkages between various contexts in focus, remainder of this paper is organized as follows. Section 3 reviews the further literature to identify gaps and possible dimensions for further research. Section 4 presents the significance and relevance of studying the relations and implications between open approach to business model innovation and managed services business models. Section 5 further discusses the factors and dimensions of managed business service model metrics while Section 6 attempts to elucidate the concluding remarks along with further intended research directions.

3.1 Definitions and Contexts for Service Innovation and Customer Co-Creation

Context of Service Innovation and Business Models

Role of ICT and digital platforms have become central to majority of the innovative products and service offerings by all organizations that are aiming for feasible, viable

and sustainable business models. All these innovations are mainly “digital” or digitally enabled, which involve new combinations of digital and physical components to create novel market offerings. In essence, such service innovations shall be considered as novel bundling of resources and customer benefits⁷.

Strategic importance of dynamic service business model is rooted in firms’ need to constantly being able to adapt to forces emanating from their surrounding business environment in an effort to stay competitive¹⁰. A business model in essence, defines the way a company generates value (value creation) and how it captures some of this value (value capture) as profit¹¹. Business Model as a theoretical concept is being discussed since late 1950s but only with the prominence of Internet and the emergence of e-businesses starting late 1990s, business model concept and its dynamics have become prominent¹². However, as established by extant literature on business model theories and service innovation, it is apparent that every organization needs to adapt to certain degree of openness while realigning their business models to that of business strategy and dynamic business environment. This means concept of ‘open innovation “mandates the need for every organization to innovate by aligning with different types of partners, types of customers and resources to acquire better input for innovating the business to stay ahead of the competition.

Context of Open Innovation

While business model theories are mature enough, open innovation and business model reconfiguration have been subjects of great interest in recent times. Most of the extant literatures especially those given in the reference, talk about emergence of Open Innovation as against the traditional innovation that are confined only to the organization (“closed innovation”). Relationship between Open Innovation and Business Model Innovation appears to be growing research interest especially western part of the world. This fact is corroborated by some of the reviewed literature which focuses on service innovation and customer co-creation¹³. Performance and innovation, openness variety, partner intensity and phase intensity¹⁴, service infusion¹⁵, value creation¹⁶, role of IT standards¹⁷, service based business models¹⁸ and strategic positioning¹⁹. There are increasing evidences of Small and Medium Establishments (SMEs) leveraging opportunities of managed services business and in recent times, such

companies have adopted to open innovation strategies, with increasing reliance on outside information²⁰.

In particular to open innovation studies, it is found that definition of open innovation by Chesbrough is most commonly referred as “open innovation is a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as firms look to advance their technology”¹. Especially the context of open innovation strategies is dealt in considerable detail with different but related contextual frame of reference by many authors²¹⁻²⁴. From our perspective, paper on open innovation implementation has successfully attempted in creating a contingency framework that links the key aspects of open innovation strategies to the business model innovations. Key findings by²² are well articulated and they offer three important insights as below which can lead to drilling down of possible content analysis and potential research case. Citing the in the same words of the authors,

- Different open innovation strategies require different business models configurations. A systematic approach to linkages of open innovation strategies and business model designs are well established.
- Need and relevance of organizational restructuring to support different open innovation strategies is well reasoned.
- Need for integration of information management and governance mechanisms that could influence open innovation strategies and business models are highlighted.

In other words, the contingency framework suggested by the authors²² integrates the various elements such as content, structure and governance, allowing for systematically reviewing the effects of different open innovations strategies on business models which can be extended to managed business services.

Context of Managed Services

In today’s digital business world, all business organizations and enterprises depend on IT enabled resources for sustainable business and hence, more and more such organizations are contracting and outsourcing to managed service providers (MSPs) to manage their complex, distributed IT infrastructure and systems¹⁷. According to some of the definitions found in literature, MSPs are in

general conceived as managed IT services provider who provide network management and information system management services to IT departments and end-users of their clients. Such services may range from simple Help desk services, hardware and network management support services, implementation and integration services, procurement and logistics services, asset management, change management services to complete business transformation services. However, in recent times, it is also evident that such bouquet of services are not just limited to mere IT silofunction as IT is no longer a vertical but horizontal enabler across all the business functions and industry segments.

Apart from academic researches, globally there are various constituent organizations and industry networks that are trying to create and disseminate knowledge around how managed services can be offered more purposefully and profitably. Managed Services Provider Alliance (MSP Alliance) is an US based international association of MSPs and vendor neutral technology enablers who have formed this alliance to share knowledge and best practices. This alliance has currently more than 25000 members primarily many of whom are SMEs and providers of niche IT enabled managed services. Interestingly, there is emerging trend in studying the challenges based by SMEs in pursuing business model innovation as managed services providers. It is argued that SMEs pursue open innovation primarily for market-related motives such as meeting customer demands, or keeping up with competitors. Their most important challenges relate to organizational and cultural issues as a consequence of dealing with increased external contacts.

Connecting Business Model Innovation and Managed Services Business Model Contexts

Managed services particularly those services which are enabled by digital means and ICT technologies are not adequately covered in the extant literature primarily because such managed services business models are relatively new. Also, many such niche services are provided by small and medium enterprises (SMEs) and entrepreneurial as startups especially in the emerging economies. In general, SMEs do not in generally adapt to innovation path immediately during initial years. It is perceived that, though only large enterprises take the innovation path seriously, the importance of SMEs and their innovation approaches cannot be undermined²⁵.

It may also be recognized that not only SMEs but even many MNCs are now trying to follow the path of horizontal organizational structure in the workplace. Such horizontal organizations enable employee-centered work culture with focus on teamwork and collaboration. This in turn can be evolved in to a customer focused service chain which is the basis for being successful managed services provider. However, SMEs as managed services providers face lots of challenges for service innovation and service integration in a typical network of service chains. This is especially more pronounced when customer involvement is significantly important in co-creating service offerings. Also, it is evident from contemporary literature and reports that customer experience and in turn their engagement plays a major role in promoting monetization of managed business services, especially B2C end user services.

Apart from research papers, a report by Frost & Sullivan study on managed services market summarizes and supplements following salient factors that are the key drivers and market challenges for managed services providers and their business model innovation approaches.

- Increasing need to focus on core business processes is driving the demand for outsourced services
- Shortage of in-house skills is driving the demand for third-party services
- Government support for infrastructural developments also affects the IT market
- Increasing competition is driving the price of managed services down
- Data security concerns remain a major hurdle in all regions
- Regional connectivity issues, high bandwidth costs, and no service-level agreements (SLAs) between MSPs and Communication Service Providers
- Local workforce challenges & quota requirements increase prices of managed services
- Budgetary limitations on IT expenditure reduce uptake of managed services

3.2 Dimensions for Probing Linkages between Managed Services and BMI

Applying the key findings and theoretical constructs that are reviewed in the preceding sections, a pictorial

depiction of linkages between BMI, open innovation and service innovation approaches for managed business services is given Figure 2 as an adaptation from the authors' perspective. Idea is to further probe the key dimensions of managed services business model for devising and developing an open framework with measureable attributes and practical value for implementation.

While the extant literature on managed services is mostly around managed IT services, open innovation strategies and their application to business model design is rich with diverse contributions from various researchers. In our perspective, collaborative and open platform business model design as a managed services value chain will be more apt for managed business services providers, which needs further quantification and validation. Experimentation and organizational leadership shall play a significant role in business performance of managed business services provider and metrics need to be devised for measuring and controlling these attributes. Also as a practice, business entities now need to embrace customer co-creation as an exploratory factor to innovate their

business models. Especially for those providing digitally enabled end user services, a lot need to be accomplished at back office for dynamic service delivery and capturing value from customers.

4. Significance and Relevance for Studying Relations and Implications between BMI and Managed Services

Rationale for studying relations and implications between BMI and Managed services business model needs further explanation. From the extant literature for managed services and service infusion, it is shown by¹⁵ that there is lack of clarity in terms of theoretical linkages between service infusion and strategic management literature. It is a global trend that contribution of service revenue towards overall GDP has become very significant. This translates to a vital fact that service dominant business approach will be the only way forward for sustainable and economically

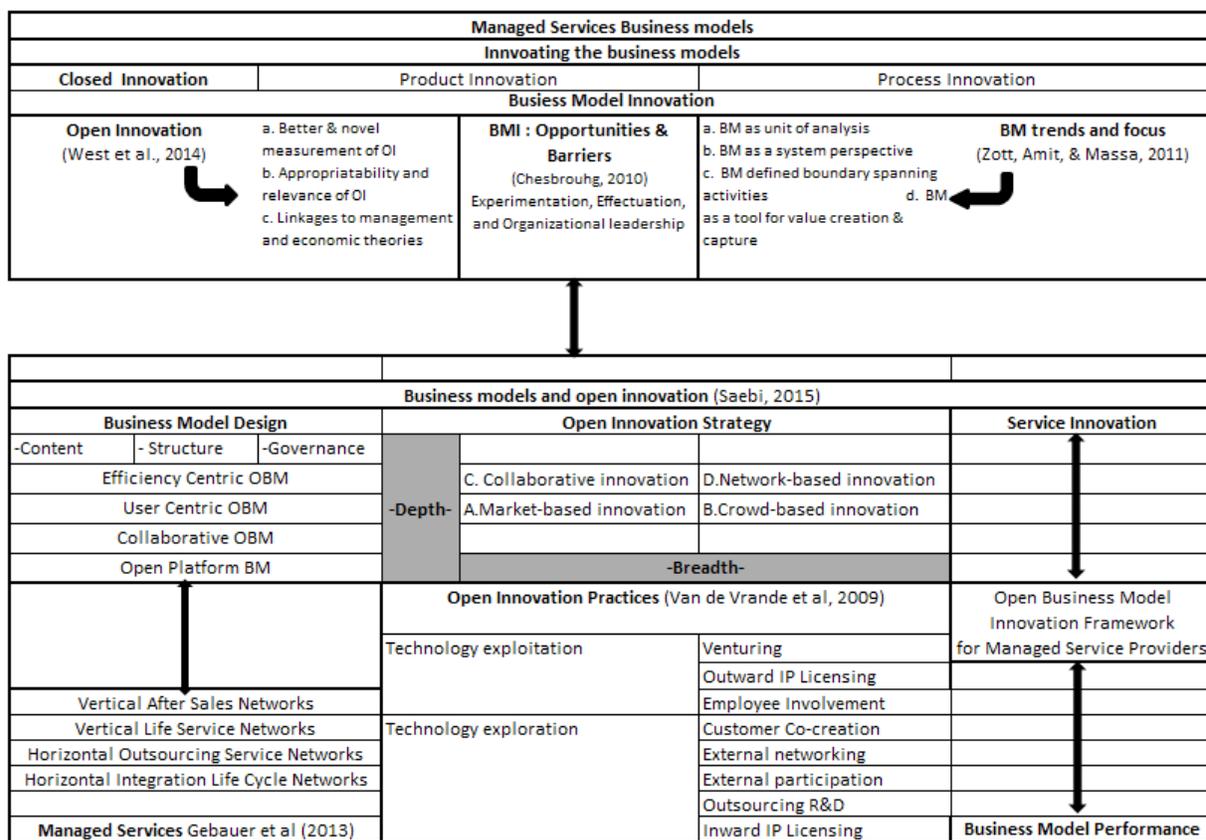


Figure 2. Theoretical linkages supporting Research model.

beneficial enterprises. Hence, it is significantly important to carry out further research that can shed more light on open approach BMI implications towards service infusion and managed services paradigms. We support this view as we concur with some of the findings regarding distinctive features that affect service performance, especially in managed services models which can be further approached in three different perspectives – contingency based, systematic and customer oriented service context²⁶. Significance of value co-creation involving customer engagement and resultant business model innovation in the extant literature has been analyzed and depicted in recent study where it is opined that co-creation has become an important paradigm in service innovation and is being developed and applied to a diverse set of empirical contexts⁸.

As beckoned in the earlier sections, digitally enabled managed services business models need further extensive probing to bring about successful common measures of dimensions that can be applied to majority of managed business services providers, irrespective of their size, structure and governance stature. With proliferating usage of big data for driving business success, adoption of cloud computing for better resource utilization, embracing social media networks for better customer understanding and consumer behavior, there are challenges that need to be addressed for bringing out openness and dynamic service innovation capabilities for all enterprises. Some of the central themes that need to be addressed by further empirical study on BMI and managed services are:

- What are the generic roles to be played by managed business services providers in the growth of an integrated business ecosystem, especially those providing smart digital solutions?
- What are the implications and specific challenges for service provider enterprises in emerging economies while adopting to open innovation?
- Is it bottoms-up or top-down approach that will enable faster growth potential fostered by service innovation for managed service providers?
- How SMEs can contribute to tangible economic value and social developments compared to larger enterprises by embracing digitally managed service models?
- Can there be a “market place” model for managed business services to provide “managed intelligence” as fourth utility, just like water, electricity and fuel?

From the market perspective, managed services are still viewed as IT solutions and services that are being outsourced to third parties. However, MNCs and large enterprises are now moving towards managed services model and SMEs and smaller enterprises are gaining traction in the same lines. As a case to quote, big companies like Rolls Royce now providing managed services for aviation operators rather than just maintenance services on their aircraft engines. It is an innovative managed services model called TotalCare, where airlines are charged for per hour of using their engine with a payment mechanism on a dollars per engine flying hour (\$/efh) basis, rather than buying or maintaining engines on their own cost. Similarly Healthcare and hospital services are now moving towards wellness as managed services and transportation solutions are transforming to mobility as service model. Such anything-as-a services (“XaaS”) approach is now being extended with service infusion to all industry verticals and markets across many regions, which are mainly made possible due to digital enablement and ICT as a technology enabler. This implies that managed services do not only refer to managed IT solutions and services any longer. Future is trending towards many small organizations collaborating with each other for providing digitally enabled niche services as managed business services for both B2B and B2C end users while the larger organizations may play an aggregator role. In order to bring about such innovative business models, significant academic and industry research need to be orchestrated to study the interplay between BMI and managed business services model to come out with actionable metrics based on open business model framework.

5. Results and Discussions

Emerging trends in the literature for open innovation and managed services as reviewed in this study show the logical evolution of theoretical and empirical findings supporting the linkages as per our research model. Sustainable and successful business model designs should be capable of accommodating necessary vertical and horizontal functionalities that can be innovated dynamically based on external and internal dimensions. Hence, business model innovation approaches should inherently be ‘open’ and with capabilities to address the barriers and challenges on the go.

With service infusion and servitization of products and solutions, there are new challenges to this open design with more focus on customer or end user needs.

As emphasize, service oriented business models need to possess additional dynamic and operational capabilities for forming a network of service delivery chain⁶. Extending this further, such service networks may grow either horizontally or vertically to optimize their business performance and customer value.

Collaborative service networks are not formed instantly rather they evolve by inclusion of many service enterprises working in tandem. Global trends in the past decade show how digital and internet enabled transformation is fostering the growth of such service networks with more entrepreneurial startups and SMEs participation. Emergence of digitally enabled managed business services in the developing countries has attracted many new ventures to join this service networks. However, such small ventures and SMEs as managed services providers face lots of challenges for service innovation and service integration in a typical network of service chains.

To retain and sustain revenue streams, these managed services providers need to focus on innovative customer engagement and customer experience activities. Here, customer co-creation seems to play a vital role for service innovation capabilities to co-create end user centric and customized service offerings for enhanced value capture and business performance. Salient points of this discussion and study should ideally move forward in further research direction with following themes of reference.

- Analyzing approaches to service innovation and adapting to dynamic business management as a value creating network
- Extending contemporary models and processes for service Innovation for competitive advantage and enhanced end user co-creation
- Studying links between IT service innovation and business service innovation towards managed business services model
- Applying and validating the metrics focusing to select geography or market segment for appropriateness and generalization

6. Conclusions and Future Research Directions

Given the research model approach and the literature reviewed, our study has highlighted certain key dimensions for further research and way forward regarding

business model innovation and managed services. Firstly the study has provided a theoretical starting point connecting business model innovation, open innovation, service innovation and managed services for expanding the literature review for identifying measurable factors that could foster innovation driven business growth for managed services providers. However, a detailed quantitative study with appropriate factor analysis can further improve the usefulness of this study. Also, supporting case studies and market reports can be included for further validating the research dimensions, especially case studies about those managed services providers who are affiliated to industry associations such as Managed Service Provider Alliance (MSPA) or regional industry forums. Secondly, our analysis has pointed out the significance of digitally enabled service innovations and how inclusion of end users can be beneficial for value creation by network of service providers in collaboration with each other. Thirdly, our study also highlights the research gaps in extant managed services literature which is mostly confined to manage IT services and solutions as vertical function rather anything-as-a-service horizontal approach. We thus promote a context of 'Managed Business Services' which may essentially be delivered through innovative technology platforms and digital means. Authors also propose to further this study for a comprehensive review of extant academic literature and market intelligence for addressing following research outline with validated output.

- To create and design a open business model innovation framework for MSPs who will be part of the value creating network to deliver and sustain digitally enabled smart solutions as bottoms up approach
- To explore and recommend select business model and service innovation metrics that would help to gauge and enhance the business performance by SMEs acting as providers managed business services as a collaborative network

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