Advances in Management & Applied Economics, Vol. 16, No.6, 2026, 323-353
ISSN: 1792-7544 (print version), 1792-7552(online)
https://doi.org/10.47260/amae/16615
Scientific Press International Limited

Employee Capabilities for Digital Service Innovation in Multi-Level Marketing: An Application of Importance - Performance Analysis(IPA)

Li-Min Chuang[1] and Chih-Hung Chen[2]

Abstract

Digital service innovation has become essential for enhancing customer value and organizational competitiveness. However, research on the capability requirements of multi-level marketing (MLM) practitioners remains limited.

Drawing on Service-Dominant Logic, Dynamic Capabilities Theory, this study identifies four key capability dimensions: Persuasion, Co-creation, Adaptability, and Self-sustainability. Using questionnaire survey data and Importance–Performance Analysis (IPA), the study examines the perceived importance and actual performance of these capabilities to identify management priorities and resource allocation needs.

The findings reveal gaps between capability importance and performance, highlighting areas requiring targeted improvement. This study contributes to digital service innovation research in the MLM context and offers practical insights for developing training strategies and capability-building programs to support digital transformation.

JEL classification numbers: C83, M15, O31.
Keywords: Multi-level Marketing (MLM), Digital Service Innovation, Employee Capabilities, Importance–Performance Analysis (IPA), Service Management.

[1] Department of International Business, Chang Jung Christian University.
[2] Ph.D. Program in Business and Operations Management, College of Management, Chang Jung Christian University.

Article Info: *Received:* October 11, 2026. *Revised*: October 28, 2026.
Published online: October 30, 2026.

1. Introduction

With the rapid advancement of artificial intelligence (AI), big data, cloud computing, social media, mobile commerce, and digital platforms, the way firms deliver services has gradually shifted from traditional face-to-face interactions toward increasingly digitalized, platform-based, and intelligent forms of service provision. Digital technologies have not only transformed the channels through which firms interact with customers but have also fundamentally reshaped the content and processes of service innovation, as well as the mechanisms through which value is created.

Drawing on a systematic literature review, Rabetino, Kohtamäki, and Huikkola (2024) indicate that digital service innovation has progressively evolved into an interdisciplinary research stream spanning digital services, servitization, and e-services. At its core, digital service innovation concerns how digital technologies reshape service value, service processes, and customer interactions. Against this backdrop, the multi-level marketing (MLM) industry is also undergoing substantial transformation. Traditional MLM practices have relied heavily on interpersonal relationships, face-to-face communication, product demonstrations, word-of-mouth communication, and organizational networks to promote products and manage customer relationships. However, the rapid diffusion of social media, livestream commerce, short-form video, e-commerce, and AI-enabled tools has gradually transformed the work practices of MLM practitioners from a predominantly *interpersonal selling* model toward a hybrid model integrating *interpersonal relationships, digital tools, and digital services*.

Consequently, the capabilities required of MLM practitioners can no longer be confined to conventional sales skills. Rather, practitioners increasingly need to develop a broad portfolio of capabilities, including digital communication, social media management, customer data analytics, digital platform utilization, AI-enabled tool adoption, online service provision, digital content creation, and digital ethics and information security. Recent research has further suggested that digital transformation is redefining the skill sets required of sales professionals, with digital sales capabilities encompassing several domains, including digital communication and social media, e-commerce and digital platforms, and AI and data analytics. These findings are particularly relevant to the MLM industry because MLM practitioners simultaneously assume the roles of *salespeople, service providers, and customer relationship managers*.

Meanwhile, service innovation research has increasingly shifted from an organization-centric view of innovation toward a broader service ecosystem perspective that emphasizes the participation and interaction of customers, employees, technologies, and other stakeholders. Santos-Vijande, López-Sánchez, and Rudd (2016) argue that frontline service employees represent an important operational resource for firms. The knowledge and experience generated through their interactions with customers can directly influence new service development and service innovation performance. Their findings suggest that frontline employee

participation and co-creation in service innovation can influence service market performance through mechanisms such as new service development speed and new service quality.

Accordingly, in the context of the MLM industry, the successful implementation of digital service innovation depends to a considerable extent on whether frontline MLM practitioners possess the capabilities required to translate digital technologies and service innovations into effective customer-facing practices.

Furthermore, the service-dominant logic proposed by Lusch and Nambisan (2015) conceptualizes service innovation not as an activity in which firms independently produce and deliver products or services, but as a process through which diverse actors integrate resources, interact with one another, and jointly create value. This perspective shifts the role of employees from traditional *service executors* toward *value co-creators* and *participants in innovation*.

Against this backdrop, this study argues that MLM firms seeking to advance digital service innovation should not focus exclusively on the extent of technology adoption. More importantly, they must address two fundamental questions: What capabilities do MLM practitioners need to effectively engage in digital service innovation? and What gaps exist between the capabilities practitioners perceive as important and their current level of performance? These questions constitute the central motivation for the present study.

Accordingly, this study focuses on practitioners in the MLM industry and investigates the employee capabilities required in a digital service innovation environment. Importance–Performance Analysis (IPA) is employed to examine the perceived importance and current performance of different capability dimensions and to identify capability areas that warrant managerial attention and resource prioritization.

Specifically, this study pursues the following research objectives:

1. To examine the developmental characteristics of digital service innovation in the MLM industry and to develop the key dimensions and measurement indicators of employee capabilities required for digital service innovation.
2. To analyze MLM practitioners' perceptions of the importance and their actual performance of digital service innovation capabilities, thereby identifying the current state of capability development and the gaps between desired and actual capabilities.
3. To employ Importance–Performance Analysis (IPA) to identify strategic priorities and areas for capability improvement and resource allocation across different dimensions of digital service innovation capabilities.
4. To propose strategies for talent development, resource allocation, and service management in support of digital service innovation in the MLM industry, thereby establishing a practical framework for facilitating the industry's digital transformation.

2. Preliminary Notes

2.1 Multi-Level Marketing and Digital Transformation

Direct selling refers to the marketing and distribution of products or services through direct interpersonal interactions between sellers and customers. Compared with conventional distribution channels, direct selling is characterized by a relatively high degree of interpersonal interaction and relationship orientation. Multi-level marketing (MLM), in turn, further integrates selling activities with organizational networks. MLM practitioners are therefore not merely product sellers; they simultaneously serve as customer relationship managers, information intermediaries, service providers, and brand representatives. Consequently, as digital technologies become increasingly embedded in the MLM industry, the nature of their work is shaped by both evolving *selling models* and *service models*.

Using a sample of 455 direct salespeople, Sypniewska (2013) found substantial differences in capabilities across performance groups and reported significant interrelationships among multiple capabilities. The emergence of digital technologies has further transformed customer engagement in direct selling from predominantly physical interactions toward increasingly multichannel forms of engagement. These channels include social media management through Facebook and Instagram, instant messaging applications such as LINE, short-form video, livestream selling, e-commerce platforms, customer relationship management (CRM) systems, mobile payments, AI-enabled customer service, AI-generated content, and customer data analytics. Accordingly, this study conceptualizes MLM practitioners as digital frontline service providers, whose role extends beyond merely selling products to creating, delivering, and sustaining customer value through digital technologies.

Harrison and Hair (2017), based on a study of 114 direct sellers, found that technology use enhanced salespeople's ability to establish and maintain customer relationships, with particularly strong benefits for less-experienced salespeople. Their findings suggest that technology adoption has become an important strategic factor in strengthening customer relationship development and relationship management performance among direct sellers. Similarly, Wait (2019) examined the competitive relationship between online selling and traditional direct selling and argued that technological advancement and intensifying market competition have encouraged traditional direct-selling firms to incorporate online sales channels into their business models. Rather than being displaced by digitalization, direct selling is increasingly evolving toward a hybrid service model that combines physical interpersonal interaction with digital channels.

From the perspective of channel configuration, Zhang, Li, and Ma (2021) examined direct selling, agency selling, and dual-channel selling and demonstrated that the development of e-commerce requires firms to reconsider the configuration of direct selling relative to alternative channels, as well as the implications of platform services and channel competition.

More recently, direct selling has expanded beyond traditional face-to-face interactions to encompass social media, e-commerce, and digital content. Studies of MLM practitioners indicate that MLM firms increasingly utilize e-commerce and social media for direct sales and market communication. Such digitalization, however, also generates new challenges concerning information disclosure, regulatory compliance, and digital communication. Accordingly, digital capability should not be understood merely as the ability to operate digital tools; rather, it also encompasses the ability to use such technologies appropriately, responsibly, and ethically.

Taken together, these developments indicate that digital transformation is fundamentally reshaping the nature of work in the MLM industry. The MLM practitioner is increasingly positioned at the intersection of selling, service provision, relationship management, and digital technology. This transformation creates a need to identify the specific capabilities required to perform effectively within an increasingly digital service environment.

2.2 Digital Service Innovation

Rabetino, Kohtamäki, and Huikkola (2024) conducted a systematic literature review of 123 studies on digital service innovation and identified three major research streams: digital servitization, service innovation in the digital age, and novel e-services enabled by information systems. Their synthesis demonstrates that digital service innovation constitutes an increasingly interconnected research domain concerned with how digital technologies transform service offerings, processes, interactions, and value creation.

Building on this perspective, this study defines digital service innovation as the activities through which firms or service providers utilize digital technologies to redesign, improve, or create service offerings, service processes, customer interactions, and mechanisms of value creation. This conceptualization is particularly relevant to the MLM context because MLM practitioners themselves constitute critical nodes in the delivery of services and the transmission of customer value.

In this study, digital service innovation encompasses five interrelated dimensions:

1) Digital technology application:
The utilization of CRM systems, social media, e-commerce platforms, digital payment systems, videoconferencing technologies, and AI-enabled tools to facilitate service delivery and customer engagement.
2) Digital customer interaction:
The use of real-time online communication, social media engagement, personalized recommendations, digital customer service, and online relationship management to enhance customer experiences.
3) Digital content innovation:
The development and application of short-form videos, livestream content, digital learning materials, AI-generated content, and personal-branding content to facilitate market communication and customer value creation.

4) Data-driven service:
The application of customer data analytics, customer behavioral analysis, sales data analysis, personalized services, and AI-assisted decision-making to improve service effectiveness and responsiveness.
5) Digital service process innovation:
The redesign and digitalization of service processes, including online ordering, digital payment, online after-sales services, automated customer follow-up, and digital membership management.

From a service-dominant logic perspective, Lusch and Nambisan (2015) conceptualize service innovation as a process through which multiple actors integrate resources through service platforms and service ecosystems to jointly create value. This perspective is particularly important for understanding digital service innovation because digital technologies facilitate interactions and resource integration among firms, employees, customers, platforms, and other stakeholders. Rabetino et al. (2024) further demonstrate that digital service innovation draws on multiple capability foundations, including digital platform capabilities, IT and technological capabilities, marketing and co-creation capabilities, and digital collaboration capabilities. Thus, digital service innovation cannot be reduced to technological implementation alone; rather, it represents a multidimensional organizational process requiring the integration of technological, relational, marketing, and collaborative capabilities.
Similarly, Iden, Eikebrokk, and Marrone (2020), based on 159 information service organizations, found that organizational structures and process architectures influence digital service innovation through mechanisms such as digital service climate and co-creation. Their findings suggest that digital service innovation requires the simultaneous alignment of organizational structures, digital culture, co-creation mechanisms, and capabilities.
Randhawa, Wilden, and Gudergan (2018), in their study of open service innovation, further argued that digital service platform intermediaries need to develop technological, marketing, and co-creation capabilities simultaneously to facilitate service innovation with customers.
Collectively, these studies indicate that digital service innovation is inherently multidimensional and capability dependent. This observation provides an important theoretical basis for examining the employee capabilities required to operationalize digital service innovation in the MLM context.

2.3 Employee Capabilities

In the context of digital transformation, employee capabilities should not be conceptualized solely in terms of conventional knowledge and technical skills. Rather, they encompass an integrated set of knowledge, skills, attitudes, behaviors, and the ability to apply technologies to solve work-related problems and create value.Wolf and Lüttenberg (2020), using a Delphi study to examine organizational

and individual capabilities associated with digital service innovation, emphasized that digital service innovation requires organizations and individuals to simultaneously develop the ability to explore new value propositions and exploit existing digital services. This perspective highlights the dual nature of capability development in digital environments: employees must be capable of both innovation and adaptation.

Accordingly, this study defines employee capabilities as the integrated knowledge, skills, attitudes, and behavioral capacities possessed by MLM practitioners that enable them to effectively perform activities associated with digital service innovation.

Coldwell-Neilson, Cooper, and Patterson (2020) examined the implications of digital transformation for workers from three perspectives: workers and workplaces, digital literacy, and digital education. Their findings particularly emphasize the importance of continuous digital learning, skill development, and reskilling in enabling workers to respond effectively to digital transformation. This perspective is highly consistent with the central premise of the present study: digital service innovation transforms the capability requirements of employees.

More recently, Dejakawincool, Jeerapattanatorn, and Sripan (2026) synthesized the digital skills required of sales employees and identified five major capability domains: digital communication and social media, CRM and customer data management, e-commerce and digital platforms, AI and data analytics, and information security and data privacy. These domains closely correspond to the capability requirements emerging within the MLM industry and provide further support for examining employee capabilities from a multidimensional perspective.

Taken together, the literature suggests that employee capabilities constitute a critical micro-level foundation for translating organizational digital strategies into actual service innovation practices. However, relatively limited research has examined how these capabilities should be conceptualized specifically within the interpersonal and relationship-intensive context of MLM. This represents an important opportunity for the present study to develop a context-specific capability framework.

2.4 Service Management

The central concern of service management is how organizations create customer value through the effective integration of people, technology, organizational processes, and customer interactions. In a digital environment, service management has increasingly evolved from a traditional model in which employees independently deliver services toward a more integrated model in which people, technologies, platforms, data, and customers jointly participate in service provision and value creation.

From a service-dominant logic perspective, Lusch and Nambisan (2015) argue that service innovation should be understood as a process through which diverse actors integrate resources and jointly create value. Their framework highlights several key

concepts, including service ecosystems, service platforms, value co-creation, and resource integration. These concepts are particularly relevant to MLM because service value is not generated solely by the firm. Rather, it emerges through interactions among the firm, MLM practitioners, customers, digital platforms, and social networks.

Santos-Vijande et al. (2016) further demonstrate that frontline employees are not merely service executors but also important participants in service innovation. Knowledge generated through employees' interactions with customers can be fed back into new service development processes and subsequently contribute to service innovation performance. Given that MLM practitioners function as the frontline interface between firms and customers, their capabilities become particularly important when firms seek to implement digital service innovation.

Moker et al. (2020) further suggest that service digitalization involves fundamental changes in how services are delivered, while internal innovation culture and external support can help firms overcome barriers associated with the digitalization of service processes.

Accordingly, service management can increasingly be conceptualized as a shift from conventional personnel-oriented management toward an integrated management approach involving people, technology, processes, data, and customers in the joint creation of value. As Lusch and Nambisan (2015) emphasize, service innovation occurs within a broader service ecosystem in which firms, customers, platforms, and other actors integrate resources to create value collectively.

From this perspective, MLM practitioners should not be regarded simply as individuals who "sell products." Rather, they are co-creators of service value and critical actors in the digital service innovation process.

Santos-Vijande et al. (2016) provide further evidence that knowledge generated through frontline employee–customer interactions can feed back into service innovation and new service development. This leads to an important theoretical shift in the present study: MLM practitioners are not merely the subjects of investigation; they are the frontline actors through whom digital service innovation is enacted and operationalized.

Finally, the systematic review by Rabetino et al. (2024) demonstrates that digital service innovation encompasses a broad set of factors, including digital platforms, technological capabilities, marketing capabilities, co-creation, stakeholder participation, and knowledge sharing. Accordingly, the concept of service management in this study extends beyond traditional service quality management toward a broader perspective of digital service innovation management, in which employee capabilities constitute a critical mechanism linking digital technologies to customer value creation.

3. Research Design

3.1 Research Framework

This study primarily draws upon the service-driven logic and dynamic capability theory to elucidate the capabilities required for digital service innovation in the multi-level marketing (MLM) industry.

From the perspective of the service-driven logic, value creation is achieved through the interaction and resource integration among enterprises, practitioners, customers, and other relevant participants. This perspective provides a theoretical foundation for examining the co-creation and persuasion relationships within a digital service environment.

Dynamic capability theory offers a complementary perspective for understanding how practitioners and organizations respond to changes in customer needs, digital technologies, and market environments. In a rapidly transforming digital environment, the ability to identify emerging opportunities, adjust service practices, and update relevant capabilities is particularly crucial.

Based on these viewpoints, This research examines four capability dimensions: persuasiveness, co-creation capability, adaptability, and self-sustainability. Subsequently, the study uses Importance-Performance Analysis (IPA) to identify the importance and current performance of these capabilities and to determine priorities for capability development and resource allocation.

Based on these theories. The study proposes that, in interacting with diverse clients, communities, and market environments, MLM practitioners need to communicate effectively, co-create value, continuously adapt to environmental changes, and achieve their own long-term development in order to provide continuous and meaningful digital services.Based on a synthesis of the relevant literature and theoretical perspectives, this study therefore identifies four key employee capability dimensions:

1. Persuasion
2. Co-creation
3. Adaptation
4. Self-sustainability

These four dimensions are subsequently evaluated using Importance–Performance Analysis (IPA) as the primary analytical approach. Specifically, the study assesses the perceived importance and current performance of each capability dimension to identify the capabilities that should receive priority for further development among MLM practitioners.

Importance–Performance Analysis (IPA), originally proposed by Martilla and James (1977), provides a straightforward framework for evaluating managerial priorities by positioning individual attributes within a two-dimensional matrix. In the conventional IPA framework, the horizontal axis represents Performance, reflecting the current level of performance, whereas the vertical axis represents

Importance, reflecting the perceived importance of each attribute.
This framework enables researchers and managers to distinguish among capabilities that are highly important but inadequately performed, capabilities that are both important and well performed, capabilities that have relatively low importance and low performance, and capabilities for which performance may exceed their perceived importance. The primary value of IPA therefore lies not merely in identifying average scores but in determining strategic priorities for improvement and resource allocation.
The conventional IPA framework consists of four quadrants:

Quadrant I: High Importance / Low Performance — *Concentrate here*
Quadrant II: High Importance / High Performance — *Keep up the good work*
Quadrant III: Low Importance / Low Performance — *Low priority*
Quadrant IV: Low Importance / High Performance — *Possible overkill*

For the present study, particular attention is given to Quadrant I (High Importance–Low Performance), which represents the primary area for capability improvement. Capabilities located in this quadrant are perceived as highly important but are associated with comparatively lower current performance. Accordingly, these capabilities warrant priority consideration in organizational training, talent development, and resource allocation.
Quadrant II (High Importance–High Performance), in contrast, represents capabilities that should be maintained and continuously strengthened. This distinction is essential for ensuring that the interpretation of the IPA matrix remains consistent with the study's analytical framework and managerial recommendations.

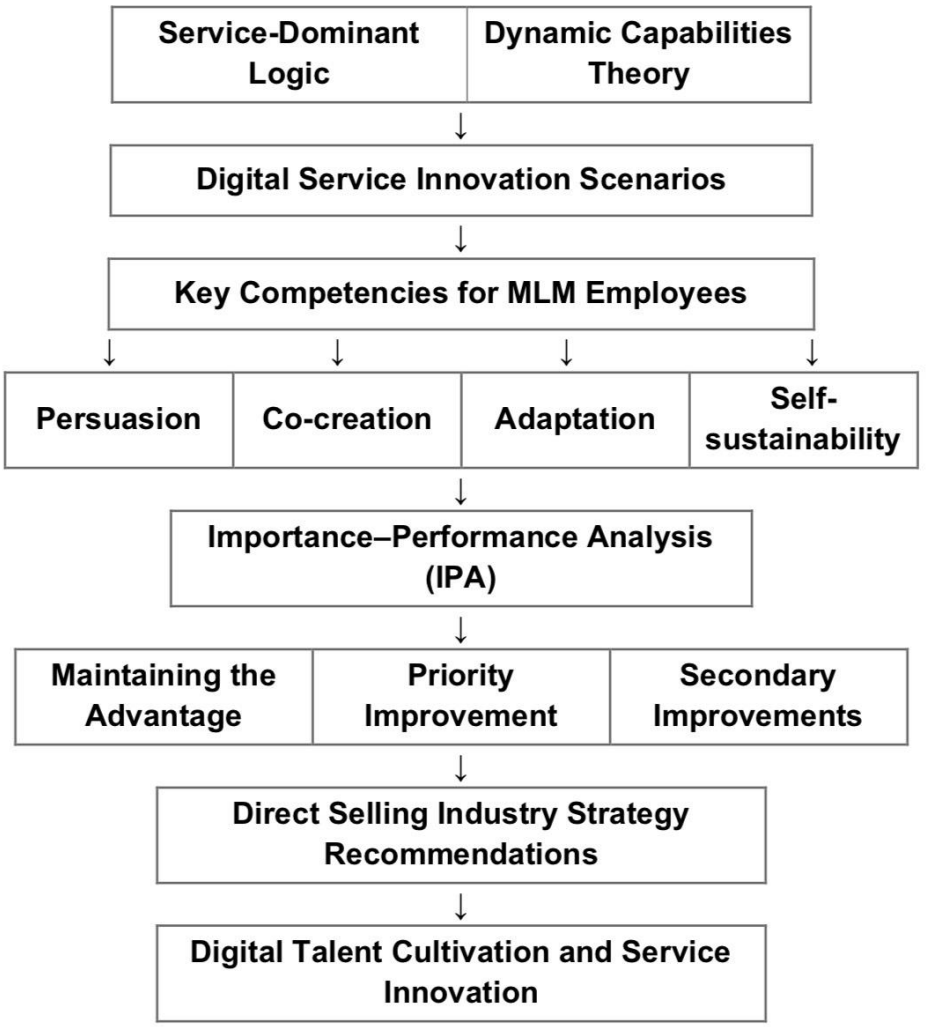


Figure 1: Theoretical Framework of the Research

3.2 Theoretical Development of the Research Constructs

3.2.1 Persuasion

Persuasion refers to the capability of MLM practitioners to use verbal, written, visual, social media, and other digital communication tools to understand customer needs and effectively communicate product, service, and brand value, thereby fostering customer understanding, trust, and willingness to take action.

Persuasion has traditionally represented a fundamental capability in direct selling. However, digitalization has transformed conventional face-to-face persuasion into increasingly diversified forms of communication:

Face-to-face communication → Social communication → Digital content communication → Multimedia interaction → Personalized communication

Accordingly, persuasion in the present study does not refer merely to conventional *sales techniques or sales scripts*. Rather, it emphasizes the capability to communicate customer-oriented value and establish trust within increasingly digital customer environments.

Operational Definition

This study defines Persuasion as:

The capability of MLM practitioners to utilize digital and non-digital communication tools to understand customer needs, communicate product and service value, establish trust-based relationships, and encourage customer participation and action.

3.2.2 Co-creation

Co-creation represents a central concept within the service-dominant logic perspective. Lusch and Nambisan (2015) argue that service innovation is not created unilaterally by firms but emerges through resource integration, service platforms, and interactions among multiple actors. Accordingly, within a digital service environment, MLM practitioners are no longer merely *providers of products* but increasingly function as co-creators of customer value.

MLM practitioners must therefore leverage social communities, digital platforms, customer information, interactive content, and service processes to jointly develop new forms of service value with customers and other stakeholders.

Operational Definition

This study defines Co-creation as:

The capability of MLM practitioners to interact with customers, teams, and firms and to integrate information, knowledge, experience, and digital resources to jointly create product, service, and experiential value that responds to customer needs.

3.2.3 Adaptation

One of the defining characteristics of the digital environment is its rapid pace of change. Customer needs, social media platforms, AI-enabled tools, digital marketing practices, competitive conditions, consumer behavior, and regulatory environments may all change rapidly. Consequently, employees need more than the ability to use existing technologies; they must also be capable of continuously learning, adjusting, and adapting.

From this perspective, adaptation represents a dynamic capability that enables MLM practitioners to respond to changing technological, market, and service conditions.

Operational Definition
This study defines Adaptation as:
The capability of MLM practitioners to continuously learn, adjust work practices, adopt new technologies, and reconfigure resources in response to rapid changes in digital technologies, customer needs, market conditions, and service models, thereby maintaining service quality and innovation capabilities.

3.2.4 Self-sustainability

The inclusion of Self-sustainability as a distinct employee capability dimension represents a distinctive feature of the present research framework. MLM practitioners generally operate with a relatively high degree of autonomy. Consequently, their long-term development cannot depend entirely on organizational training programs or technological resources provided by firms. Instead, practitioners need to independently develop capabilities related to continuous learning, self-management, personal branding, digital capability renewal, customer relationship maintenance, resilience, and continuous innovation. Accordingly, self-sustainability should not be interpreted simply as *individual success*. Rather, it refers to an individual's capacity to continuously maintain and renew the capabilities required to deliver digital services and create customer value over time.

Operational Definition
This study defines Self-sustainability as:
The capability of MLM practitioners to maintain their long-term capacity to deliver digital services and create customer value through continuous learning, self-management, capability renewal, personal branding, and resource integration.

3.3 IPA Research Design

This study employs Importance–Performance Analysis (IPA) as the primary analytical approach. Originally proposed by Martilla and James (1977), IPA provides a framework for simultaneously assessing the perceived importance and actual performance of individual attributes and positioning them within a two-dimensional matrix.
In the present study, the four employee capability dimensions and their respective measurement indicators are evaluated in terms of both perceived importance and current performance. A five-point Likert scale is employed to assess respondents' perceptions of the importance and performance of each capability. The mean scores of Importance and Performance are subsequently calculated and used as the coordinates for constructing the IPA matrix.
The four quadrants are interpreted as follows:

Quadrant I: High Importance × Low Performance — *Concentrate Here*
This quadrant represents the highest priority for improvement in the present study. Capabilities located in this quadrant are perceived by employees as highly important, yet their current performance is relatively inadequate. This indicates a clear capability–performance gap and suggests that organizations should prioritize investments in employee training, capability development, and related resources.
Strategic implication: Prioritize organizational resources and capability-development initiatives.

Quadrant II: High Importance × High Performance — *Keep Up the Good Work*
Capabilities in this quadrant are perceived as highly important and are currently performed at a relatively high level.
These capabilities represent organizational strengths that should be maintained and continuously reinforced.
Strategic implication: Maintain current performance and pursue continuous enhancement.

Quadrant III: Low Importance × Low Performance — *Low Priority*
Capabilities in this quadrant are perceived as relatively less important and are also characterized by lower performance.
These capabilities do not represent immediate strategic priorities. Organizations may maintain an adequate level of capability without allocating substantial additional resources.
Strategic implication: Maintain basic capability levels and allocate resources selectively.

Quadrant IV: Low Importance × High Performance — *Possible Overkill*
Capabilities in this quadrant demonstrate relatively high current performance but comparatively low perceived importance.
This pattern may indicate that organizational resources are being devoted to capabilities beyond what respondents consider strategically necessary. Organizations may therefore reconsider whether the current level of investment is excessive and whether resources could be reallocated to higher-priority capability areas.
Strategic implication: Reassess resource allocation and consider reallocating excessive investment toward higher-priority capabilities.
For the present study, particular emphasis is placed on Quadrant I (High Importance × Low Performance) because capabilities positioned in this quadrant represent the most critical areas for capability development. These capabilities reflect situations in which MLM practitioners recognize a capability as highly important but perceive their current ability to perform it as insufficient. Accordingly, Quadrant I serves as the primary basis for identifying priorities for organizational training, talent development, and resource allocation.

3.4 Research Participants

This study examines perceptions of employee capabilities for digital service innovation among participants in the Taiwanese multi-level marketing (MLM) industry, with a particular focus on the beauty products sector. Purposive sampling was used to recruit respondents with varying levels of organizational responsibility and experience in MLM activities.

The sample included basic members, lower-level operators, middle-level managers, and senior executives. Middle-level managers and senior executives accounted for 83.0% of the valid responses, indicating that the sample was predominantly composed of respondents with managerial responsibilities.

Accordingly, the unit of analysis in this study is the individual respondent's assessment of the perceived importance and current performance of digital service innovation capabilities. The findings primarily reflect the perceptions of the sampled MLM participants, particularly those in managerial and senior leadership positions, rather than direct observations of frontline work practices or objective organizational performance.

3.5 Data Analysis Methods

The data collected in this study are analyzed using the following statistical methods:

1. Descriptive Statistics

Descriptive statistics are used to summarize the characteristics of the sample and the distribution of responses. The analysis includes means, standard deviations, frequencies, and percentages.

2. Reliability Analysis

Cronbach's alpha (α) is employed to assess the internal consistency and reliability of the measurement items within each construct. A higher alpha coefficient indicates a greater degree of internal consistency among the items measuring the same capability dimension.

3. Importance–Performance Analysis

Importance–Performance Analysis (IPA) is conducted to compare the perceived importance and current performance of the four employee capability dimensions and their respective indicators. The mean scores of Importance and Performance are plotted on a two-dimensional matrix to classify individual capabilities into four strategic quadrants. The resulting matrix is then used to identify capability gaps, improvement priorities, and areas in which organizational resources may require reallocation.

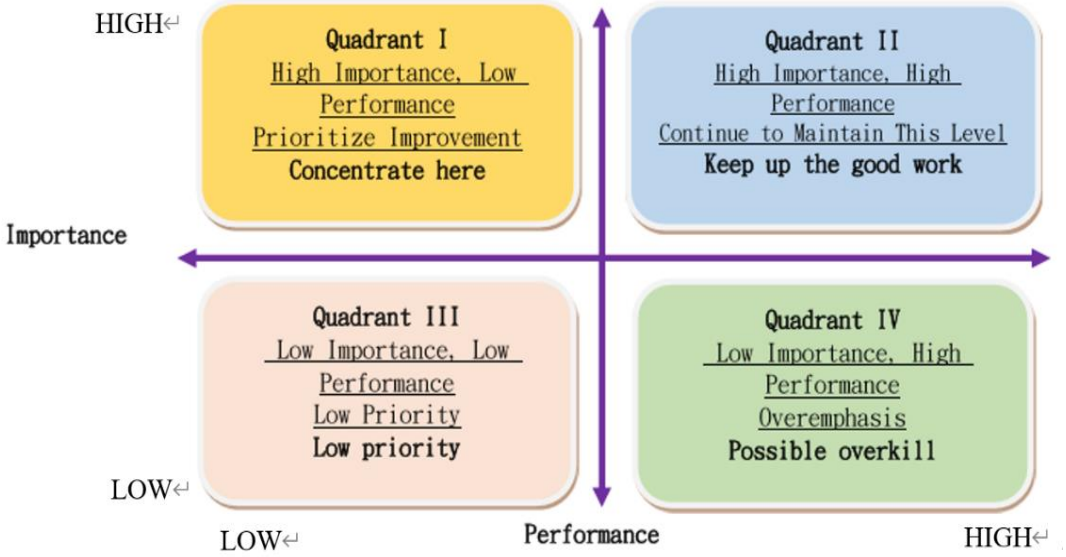


Figure 2: The Importance-Performance Analysis (IPA) matrix

4. Research Results and Analysis

4.1 Sampling and Sample Characteristics

This study employed a purposive sampling approach to recruit participants from the direct selling and multi-level marketing (MLM) industry in Taiwan, with a particular focus on practitioners associated with the beauty products sector. A total of 360 questionnaires were distributed, of which 300 valid responses were obtained, yielding a valid response rate of approximately 83%.

The survey was designed to investigate the key capabilities required by members of MLM organizations in the context of digital service innovation and to employ Importance–Performance Analysis (IPA) to identify priorities for organizational capability development.

The sample was predominantly composed of female respondents, individuals in middle-to-older age groups, and mid- to senior-level practitioners or managers. The respondents generally possessed substantial industry experience and practical involvement in MLM organizational activities. These characteristics provide a relevant empirical basis for examining how MLM practitioners perceive the importance and current performance of capabilities associated with digital service innovation.

Given the use of purposive sampling, the findings should be interpreted primarily within the context of the sampled MLM practitioners and the Taiwanese direct-selling industry rather than as statistically representative of the entire MLM population. Nevertheless, the sample provides meaningful insights into practitioners' perceptions and practical experiences concerning the capability requirements associated with digital service innovation.

Table 1: Summary of the distribution of basic data of the sample

Variables	Sort	Number of people	percentage
Gender	**Female**	270	90.0%
	Male	30	10.0%
Marital status	**Married**	166	55.3%
	Unmarried	134	44.7%
Age	**31~40 years old**	18	6.0%
	41~50 years old	155	51.7%
	51~60 years old	121	40.3%
	61~70 years old	6	2.0%
Education level	**High school**	113	37.7%
	Colleges and Universities	130	43.3%
	Graduate School	57	19.0%
Hierarchy	**Basic Membership**	28	9.3%
	Low-level operators	23	7.7%
	Mid-level managers	121	40.3%
	Senior executives	128	42.7%
Years of experience	**Less than 1 year**	60	20.0%
	1 to 3 years	118	39.3%
	4 to 6 years	75	25.0%
	7 to 10 years	47	15.7%

Regarding data quality, the Cronbach's alpha coefficients for the Importance and Performance scales were 0.850 and 0.884, respectively, indicating good internal consistency and satisfactory reliability of the measurement scales.

In addition, the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy was 0.857, while Bartlett's test of sphericity reached statistical significance (χ^2 = 1510.761, $p < .001$). These results indicate that the correlation structure among the measurement items was sufficiently appropriate for factor analysis, providing support for the suitability of the data for subsequent construct validation.

Table 2: Reliability Analysis of the Measurement Scales

Measurement Scale	Cronbach's α	Interpretation
Importance Scale	.850	Good
Performance Scale	.884	Good

Table 3: KMO and Bartlett's Test Results

Test Item	Value
Kaiser–Meyer–Olkin (KMO) Measure of Sampling Adequacy	.857
Bartlett's Approximate Chi-Square	1510.761
Degrees of Freedom (df)	528
Significance	.000

The results of the principal component analysis further revealed that the 33 measurement items could be extracted into 11 factors with eigenvalues greater than 1, accounting for a cumulative explained variance of 53.577%. These findings suggest that the digital service innovation capability construct examined in this study possesses a multidimensional structure encompassing diverse capability domains, including data application, artificial intelligence technologies, customer relationship management, organizational training, cross-boundary collaboration, and value communication.

Table 4: Summary of Total Variance Explained

Item	Result
Number of Measurement Items	33
Extraction Method	Principal Component Analysis
Number of Factors with Eigenvalues > 1	11
Eigenvalue of the First Factor	5.905
Variance Explained by the First Factor	17.893%
Cumulative Explained Variance	53.577%

Table 5: The 11 Components with Eigenvalues Greater Than 1

Component	Eigenvalue	Variance Explained (%)	Main Items / Conceptual Indicators
F1	5.925	17.89	AI-enabled customer service; collecting customer feedback and translating it into innovative solutions
F2	1.425	4.30	New market research; partner development; organizational networks; centralized procurement
F3	1.348	4.07	AI-enabled digital tools; digital customer management systems; transaction convenience
F4	1.282	3.87	Resource sharing; cross-sector collaboration; digital platform automation
F5	1.256	3.79	Corporate information transparency; localized marketing; incentive systems
F6	1.164	3.52	Customer behavioral analytics; customer segmentation; partner development
F7	1.123	3.39	Addressing negative perceptions of multi-level marketing; fair systems; risk management
F8	1.114	3.37	Customer testimonials; consultative services; partner training; value communication
F9	1.055	3.19	Local community collaboration; digital promotion; customer care
F10	1.042	3.15	Legal and compliance communication; customer segmentation; consultative services
F11	1.005	3.04	Customized services for specific customer segments; collaboration with training institutions to establish capability-development systems
Cumulative variance explained	—	53.58	Cumulative variance explained by the 11 components

Table 6: Mapping of the 11 PCA Components to the Four Theoretical Dimensions: Primary Theoretical Alignment and Cross-Dimensional Notes

Primary Theoretical Dimension	PCA Component	Rationale and Cross-Dimensional Notes
Persuasion	F5. Transparent Communication and Long-Term Operating Mechanisms	Information transparency can strengthen trust and credibility, while incentive systems may also relate to Self-sustainability.
	F7. Trust Building and Risk Management	Addressing negative perceptions, promoting fair practices, and communicating compliance requirements are closely related to trust building and relationship management.
	F10. Compliance Communication and Customer Management	Legal and compliance communication may reduce negative perceptions and strengthen trust. Customer segmentation also has implications for Adaptation.
Co-creation	F1. Customer Interaction and Feedback-Driven Innovation	Transforming customer feedback into innovative solutions reflects customer participation and collaborative value creation. AI-enabled customer service may also contribute to Persuasion.
	F8. Word-of-Mouth Services and Capability Development	Customer testimonials, consultative services, and partner training support value delivery and collaborative relationships. Some elements may also overlap with Persuasion.
	F9. Community Collaboration and Digital Promotion	Local partnerships, customer engagement, and collaborative promotion reflect multi-stakeholder participation and resource integration.
	F11. Customized Services and Development Partnerships	Customized services address differentiated customer needs, while collaboration with training institutions may also support long-term capability development and Self-sustainability.
Adaptation	F2. Market Expansion and Organizational Support	New market research reflects market sensing, while partner development, organizational networks, and centralized procurement may also relate to Self-sustainability. This component appears to contain substantial cross-dimensional content.
	F3. Digital Service Infrastructure	Digital tools and customer management systems support service-process adjustment and digitalized operations.
	F4. Digital Efficiency and Cross-Sector Resource Integration	Digital automation reflects operational adaptation, whereas resource sharing and cross-sector collaboration are also conceptually associated with Co-creation.
	F6. Customer Analytics and Market Segmentation	Customer behavioral analytics and market segmentation support the identification of changing needs and the adjustment of service and marketing strategies.

To clarify the relationship between these results, the extracted components were examined in relation to their salient item loadings and conceptual content. The item patterns suggest potential connections with the four theoretical dimensions.

The subsequent Importance–Performance Analysis (IPA) was conducted at the individual-item level to identify capability areas requiring improvement, those whose existing performance should be maintained, and those for which resource allocation may warrant reconsideration.

The PCA and IPA results are therefore interpreted as complementary but analytically distinct. PCA informs the exploration of the measurement structure, whereas IPA identifies differences between perceived importance and current performance.

4.2 Overall Importance–Performance Gap

The results indicate that, across the 33 digital service innovation employee capability items, the overall mean score for perceived Importance was 4.353, whereas the overall mean score for current Performance was 4.248. Both values reflect a relatively high level of evaluation; however, perceived Importance exceeded current Performance by 0.105, indicating the existence of an overall capability gap.

Table 7: Summary of Overall Importance and Performance

Indicator	Mean
Overall Importance	4.353
Overall Performance	4.248
Overall Gap	0.105

This finding carries important managerial implications. First, members of MLM organizations generally recognize the importance of digital service innovation and demonstrate a strong awareness of the capabilities required in a digitally transformed service environment. Nevertheless, the current level of organizational capability has not yet fully matched the level of capability considered important by practitioners.

In other words, the primary challenge facing MLM organizations is no longer whether digital transformation is important, but rather how digital technologies can be effectively translated into organizational capabilities and customer value creation. The observed gap suggests that the industry may currently be undergoing a transitional stage, gradually shifting from a traditional relationship-oriented business model toward a more data-driven and intelligent service-oriented model.

Accordingly, this study adopts the overall mean Importance score (4.353) and the overall mean Performance score (4.248) as the crosshair coordinates for constructing the IPA matrix. These two mean values serve as the reference points for classifying individual digital service innovation capability items into the four IPA quadrants and identifying their corresponding strategic priorities for organizational capability development and resource allocation.

4.2 Importance–Performance Analysis Results

4.2.1 Priority Improvement Capabilities: From Digital Tools to Data-Driven Services

The Importance–Performance Analysis (IPA) results indicate that six capability items fall within Quadrant I (High Importance–Low Performance; "Concentrate Here"), representing capabilities that practitioners perceive as highly important but that currently demonstrate relatively inadequate performance. These capabilities are as follows:

1. Collecting customer feedback and translating it into innovative solutions
2. Overcoming customers' negative perceptions and biases toward multi-level marketing
3. Resource sharing and cross-sector collaboration
4. Using artificial intelligence (AI) to provide personalized recommendations
5. Monitoring and analyzing customer behavioral data
6. Leveraging digital platforms and AI to promote process automation

The six capabilities collectively indicate that the priority for capability development in MLM organizations extends beyond the adoption of digital tools themselves. Rather, the critical challenge lies in transforming digital technologies and data resources into actionable organizational capabilities and enhanced service value. In particular, the concentration of items related to customer data, AI-enabled personalization, process automation, feedback utilization, and cross-sector collaboration suggests that MLM organizations have recognized the strategic importance of digital transformation but have yet to fully develop the capabilities required to operationalize these technologies effectively.

From a strategic perspective, these findings imply a transition from technology adoption toward capability-based digital service innovation. Digital platforms and AI should not merely be viewed as technological instruments for improving operational efficiency; instead, they should function as mechanisms for understanding customer needs, supporting personalized service delivery, facilitating organizational collaboration, and generating new forms of customer value.

Notably, the inclusion of "overcoming customers' negative perceptions and biases toward multi-level marketing" in Quadrant I further highlights the continuing importance of trust and reputation in the digital transformation of the MLM industry. Although digital technologies can enhance the efficiency and reach of service interactions, they cannot independently resolve customers' concerns regarding the legitimacy, credibility, and value of MLM. Accordingly, digital service innovation should be accompanied by systematic efforts to strengthen trust building, transparent communication, customer engagement, and value-based relationship management.

Overall, the Quadrant I findings suggest that MLM organizations should prioritize investments in data-driven customer insight, AI-enabled personalization, digital process automation, customer feedback utilization, collaborative resource

integration, and trust-oriented digital communication. These capabilities represent the most immediate areas for improvement and constitute critical foundations for transitioning from a traditionally relationship-oriented business model toward a data-driven and intelligent service ecosystem.

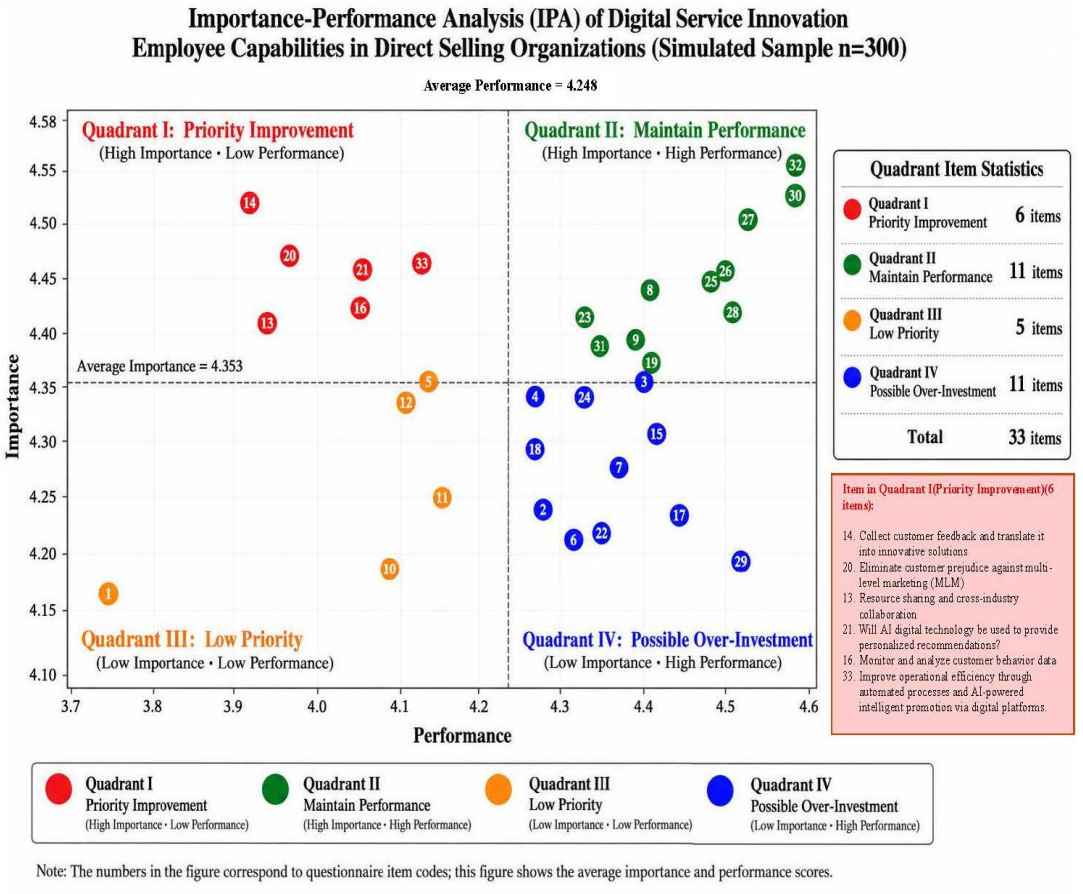


Figure 3: Importance–Performance Analysis (IPA) Matrix

Note: The X-axis represents Performance, and the Y-axis represents Importance. The crosshair reference points are based on the overall mean scores of 4.248 for Performance and 4.353 for Importance, respectively.

Table 8: Distribution of Items Across the Four IPA Quadrants

Quadrant	Classification Criterion	Number of Items	Managerial Implication
Quadrant I: Concentrate Here	High Importance Low Performance	6	Immediate allocation of resources for improvement
Quadrant II: Keep Up the Good Work	High Importance High Performance	11	Maintain existing strengths
Quadrant III: Low Priority	Low Importance Low Performance	5	Not an immediate priority for improvement
Quadrant IV: Possible Overkill	Low Importance High Performance	11	Review the efficiency of resource allocation
Total	—	33	—

Among the six capabilities classified into Quadrant I (Concentrate Here), "Collecting customer feedback and translating it into innovative solutions" exhibited the largest importance–performance gap (0.580), followed by "Eliminate customer prejudice against multi-level marketing " (0.507) and "Resource sharing and cross-industry collaboration" (0.467).

These findings indicate that the core bottleneck in digital service innovation within MLM organizations does not necessarily lie in the lack of digital tools. Rather, the more fundamental challenge is the limited capability to effectively connect the chain of customer data → data analytics → service design → innovation and continuous improvement. In particular, the simultaneous placement of AI-enabled personalized recommendations, customer behavioral analytics, and process automation in the priority-improvement quadrant suggests that MLM organizations still rely substantially on individual experience and interpersonal interactions when delivering services and making recommendations, while data-driven service models have yet to be fully institutionalized.

More importantly, "Eliminate customer prejudice against multi-level marketing" is also identified as a priority-improvement capability. This finding suggests that digital transformation in the MLM industry is not merely a technological issue; it also involves the reconstruction of industry trust, legitimacy, and perceived value. If digital technologies are used primarily to increase promotional efficiency without simultaneously improving information transparency, service professionalism, and customer trust, digitalization may simply be perceived as a more efficient sales mechanism rather than as a genuine form of service innovation.

From this perspective, the Quadrant I results highlight the need for MLM organizations to move beyond a technology-adoption mindset and develop an integrated data-driven service capability. Such a capability should enable organizations to transform customer information into actionable insights, translate

those insights into service innovation, and continuously improve customer value through AI, digital platforms, and collaborative resource integration.

Table 9: Priority Improvement Items in Quadrant I

Item No.	Item	Mean Importance	Mean Performance	Gap
14	Collect customer feedback and translate it into innovative solutions	4.487	3.907	0.580
20	Eliminate customer prejudice against multi-level marketing	4.450	3.943	0.507
13	Resource sharing and cross-industry collaboration	4.393	3.927	0.467
21	Will AI digital technology be used to provide personalized recommendations?	4.437	4.033	0.403
16	Monitor and analyze customer behavior data	4.403	4.037	0.366
33	Improve operational efficiency through automated processes and AI-powered intelligent promotion via digital platforms.	4.443	4.107	0.336

Note: Gap = Mean Importance − Mean Performance. Items are classified into Quadrant I (Concentrate Here) when their Importance scores are above the overall mean Importance of 4.353 and their Performance scores are below the overall mean Performance of 4.248.

Accordingly, this study identifies three core capabilities that should receive the highest priority in the future development of MLM organizations:
Data Insight → AI-Enabled Service → Digital Trust.
Together, these three capabilities constitute a critical foundation for enabling MLM organizations to transition from relationship-based promotion toward intelligent service delivery. This capability trajectory emphasizes not only the adoption of digital technologies, but also the organizational capacity to transform customer data into actionable insights, leverage AI to enhance personalized services, and establish trust within increasingly digitalized customer interactions.

4.2.2 Capabilities to Maintain: The Continuing Strategic Value of Existing Relationship-Based Service Advantages

A total of 11 items were classified into Quadrant II (High Importance–High Performance; “Keep Up the Good Work”). These items primarily encompass capabilities related to professional training, customer care, addressing trust-related concerns, new-market research, consultative services, incentive systems, partner development, organizational network effects, proactive promotion, and value

delivery across different customer segments.

This finding indicates that the relationship-based capabilities accumulated by MLM organizations over time—including interpersonal relationships, education and training, team support, and consultative service—remain important sources of competitive advantage. Therefore, digital service innovation should not be regarded as a process of replacing traditional interpersonal interactions. Instead, organizations should consider how digital technologies can augment and extend their existing service capabilities.

In other words, future competitive advantage will not depend on a binary choice between "people" and "technology," but rather on the effective integration of the two. MLM organizations should leverage their existing capabilities in relationship management, trust building, and education and training, while using digital platforms, AI, and data analytics to extend these capabilities. Such integration can enable personalized services to transcend the constraints of time, geographic boundaries, and organizational scale, thereby enhancing the scalability and consistency of service delivery.

From this perspective, the results suggest that the digital transformation of MLM organizations should follow an augmentation rather than substitution logic. Human relationships remain central to value creation, while digital technologies serve as enabling mechanisms for expanding the reach, responsiveness, and intelligence of relationship-based services.

4.2.3 Low-Priority and Possible-Overkill Capabilities: Reconsidering Resource Allocation

A total of five items were classified into Quadrant III (Low Importance–Low Performance; "Low Priority"), including AI-enabled intelligent customer service, corporate information transparency, local community collaboration, collaboration with technology providers, and external training and development systems. Although these capabilities currently demonstrate relatively low performance, their perceived importance is also below the overall mean. Accordingly, they should not be regarded as the most immediate areas for resource investment in the short term.

In contrast, 11 capabilities were classified into Quadrant IV (Low Importance–High Performance; "Possible Overkill"), including social media exposure, sharing success stories, member activities, transaction convenience, word-of-mouth marketing, centralized purchasing, and market segmentation. These capabilities currently demonstrate relatively high levels of performance, while their perceived importance remains below the overall mean.

It is important to emphasize that classification into "Possible Overkill" does not imply that these activities should be discontinued. Rather, it signals the need for managers to reassess the marginal returns and strategic efficiency of resource allocation. If organizations continue to devote substantial resources to social media exposure, promotional activities, and traditional promotional practices while overlooking data integration, AI-enabled services, and customer trust building, an

asymmetric capability structure may emerge in which front-end promotional capabilities are relatively strong, whereas back-end intelligent service capabilities remain underdeveloped.

Therefore, the key managerial implication of the IPA results lies not simply in encouraging organizations to increase investment, but in helping them optimize the allocation of existing resources according to strategic priorities. In particular, resources should gradually shift from capabilities that are already mature or potentially overdeveloped toward capability domains with higher strategic importance but lower current performance, especially data-driven customer insight, AI-enabled service delivery, digital process integration, and digital trust building.

Overall, the IPA findings provide evidence for a strategic shift from a "more investment" logic toward a "better allocation" logic, enabling MLM organizations to align capability development with emerging requirements for digital service innovation and long-term competitive advantage.

5. Conclusions and Recommendations

This study employed Importance–Performance Analysis (IPA) to examine the perceived importance and current performance of employee capabilities for digital service innovation within MLM organizations. By identifying organizational strengths and priority areas for improvement, the study provides practical recommendations for strengthening digital service innovation capabilities and supporting organizational transformation.

5.1 Research Conclusions

The findings indicate that members of MLM organizations generally attach a high level of importance to employee capabilities for digital service innovation. However, the overall perceived Importance score remains higher than the corresponding Performance score, suggesting that although MLM organizations have established a certain foundation for digital transformation, a gap remains between the capabilities currently demonstrated by organizations and the capabilities expected by their members.

The IPA results further reveal that the organization's current core strengths are primarily concentrated in areas such as professional training, customer care, consultative services, partner development, and value delivery. These findings suggest that the interpersonal interaction, relationship management, and organizational development capabilities accumulated by the MLM industry over time remain important sources of competitive advantage. Accordingly, digital service innovation should not be viewed as a substitute for existing relationship-based services; rather, digital technologies should be leveraged to enhance the efficiency, scalability, and value of existing service capabilities.

In contrast, the priority improvement items are primarily concentrated in customer feedback utilization, industry trust building, cross-sector resource integration, AI-enabled personalized recommendations, customer behavioral data analytics, and

digital process automation. These findings suggest that the core challenge currently facing MLM organizations extends beyond the adoption of digital tools. The more fundamental issue is how to effectively integrate customer data, AI technologies, and service processes to develop a systematic capability for data-driven service innovation.

Taken together, the findings suggest that the future digital transformation of MLM organizations should gradually move beyond a traditional relationship- and promotion-oriented model toward an intelligent service model that integrates interpersonal relationships with data analytics, AI applications, and digital trust. Such a transformation does not imply the displacement of human-centered services. Instead, it represents the strategic augmentation of relationship-based capabilities through digital technologies.

5.2 Managerial Recommendations

Based on the empirical findings, this study proposes four managerial recommendations.

First, organizations should establish systematic mechanisms for customer feedback collection and data utilization. Organizations should systematically collect information regarding customer needs, purchase records, service experiences, and product usage, and subsequently transform these data into actionable insights for service improvement and innovation. Such mechanisms can strengthen organizational responsiveness to changing customer needs and provide an empirical foundation for customer-centered service innovation.

Second, organizations should actively adopt AI and digital automation technologies. AI can be applied to customer segmentation, personalized recommendations, service follow-up, and the automation of routine operational processes. By reducing repetitive tasks, these technologies can enable MLM practitioners to allocate more time and resources to higher-value activities, particularly consultative services, customer relationship management, and trust-based interactions. The strategic objective should therefore be to use AI not simply to automate existing sales activities, but to enhance the quality and intelligence of service delivery.

Third, digital transformation should be accompanied by systematic efforts to strengthen industry trust and information transparency. In addition to improving digital service efficiency, organizations should enhance product information disclosure, institutional transparency, legal and compliance education, and after-sales service assurance. These measures can reduce customers' concerns regarding the MLM industry and strengthen the credibility of digital interactions. From this perspective, digital technologies should function not merely as tools for increasing promotional efficiency, but also as mechanisms for building trust, demonstrating legitimacy, and enhancing customer-perceived service value.

Fourth, organizations should reassess their resource allocation priorities. Rather than continuing to increase investment primarily in social media exposure and promotional activities, organizations should prioritize resources for strategically

important capabilities such as customer data analytics, AI-enabled services, process automation, and cross-sector collaboration. Such a reallocation can help organizations address the capability gaps identified through the IPA analysis and improve the overall effectiveness of digital transformation.

Overall, these recommendations suggest that MLM organizations should move from a conventional "more investment" approach toward a "strategic resource reallocation" approach. The objective is not simply to increase the extent of digitalization, but to ensure that digital investments are translated into sustainable organizational capabilities and enhanced customer value.

5.3 Research Limitations

First, the sampling approach and respondent composition limit the generalizability of the findings. Although the study obtained 300 valid responses, 83.0% of the respondents were middle-level managers or senior executives, and the sample was concentrated in the Taiwanese MLM industry, particularly the beauty products sector. Therefore, the findings should be interpreted primarily as respondents' perceptions of digital service innovation capabilities rather than as direct evidence of frontline practitioners' actual behaviors or objective organizational capabilities.

Second, the study employed purposive sampling, which does not ensure statistical representativeness of the entire MLM population. Future research should incorporate more diverse organizations and systematically compare managerial, frontline, and other stakeholder perspectives.

Third, Importance–Performance Analysis (IPA) provides a diagnostic approach to identifying relative capability priorities but does not establish causal relationships between employee capabilities, digital service innovation, and organizational performance. Future research could use validated measurement models and additional empirical methods to investigate these relationships more rigorously.

5.4 Directions for Future Research

Future research can extend this study in three major directions.

First, future studies could compare perceptions of digital service innovation capabilities across different levels of MLM participants. For example, comparisons among organizational leaders, managers, frontline practitioners, and other members could reveal differences in digital capability requirements, perceived importance, and performance gaps across organizational roles. Such comparisons would provide a more comprehensive understanding of how digital transformation requirements vary across different levels of the MLM organizational hierarchy.

Second, future research could incorporate the customer perspective to conduct cross-stakeholder analysis. Comparing the perceptions of organizational members with those of customers would help determine whether the two groups hold consistent views regarding digital service quality and value. Such an approach could further identify potential gaps between organizational service provision and customer expectations, thereby providing a more comprehensive basis for service

innovation and capability development.

Third, future studies could combine qualitative interviews with quantitative approaches such as Structural Equation Modeling (SEM) to further develop and empirically validate a Digital Service Innovation Capability Model for MLM Organizations. In particular, future research could examine how capabilities related to data analytics, AI applications, digital trust, and organizational service capabilities influence customer satisfaction, customer trust, and organizational performance. Integrating qualitative insights with quantitative causal modeling would enable future studies to move beyond the diagnostic function of IPA and establish a more theoretically grounded and empirically validated framework for explaining the mechanisms through which digital service innovation capabilities generate organizational and customer value.

Taken together, these future research directions can extend the present study from capability identification and strategic prioritization toward capability mechanism validation and theory development, thereby contributing to a deeper understanding of digital service innovation within the MLM industry.

References

[1] Rabetino, R., Kohtamäki, M. & Huikkola, T. (2024). Digital service innovation (DSI): A multidisciplinary (re)view of its origins and progress using bibliometric and text mining methods. *Journal of Service Management, 35*(2), 176–201. DOI: 10.1108/JOSM-12-2022-0375.

[2] Santos-Vijande, M.L., López-Sánchez, J.Á. & Rudd, J.M. (2016). Frontline employees' collaboration in industrial service innovation: Routes of co-creation's effects on new service performance. *Journal of the Academy of Marketing Science, 44*(3), 350–375. DOI: 10.1007/s11747-015-0447-4.

[3] Lusch, R.F. & Nambisan, S. (2015). Service innovation: A service-dominant logic perspective.
MIS Quarterly, 39(1), 155–175. DOI: 10.25300/MISQ/2015/39.1.07.

[4] Sypniewska, B.A. (2013). Examination of the individual competencies that differentiate results in direct sales. *Contemporary Economics, 7*(1), 83–100. DOI: 10.5709/CE.1897-9254.76.

[5] Harrison, D.E. & Hair, J.F. (2017). The use of technology in direct-selling marketing channels: Digital avenues for dynamic growth. *Journal of Marketing Channels, 24*(1–2), 39–50. DOI: 10.1080/1046669X.2017.1346979.

[6] Wait, M. (2019). The rivalry between online and direct selling – Is there a winner? *Acta Commercii, 19*(1), Article a679. DOI: 10.4102/ac.v19i1.679.

[7] Zhang, C., Li, Y. & Ma, Y. (2021). Direct selling, agent selling, or dual-format selling: Electronic channel configuration considering channel competition and platform service. *Computers & Industrial Engineering, 157*, 107368. DOI: 10.1016/j.cie.2021.107368.

[8] Iden, J., Eikebrokk, T.R. & Marrone, M. (2020). Process reference frameworks as institutional arrangements for digital service innovation. *International Journal of Information Management, 54*, Article 102150. DOI: 10.1016/j.ijinfomgt.2020.102150.

[9] Randhawa, K., Wilden, R. & Gudergan, S. (2018). Open service innovation: The role of intermediary capabilities. *Journal of Product Innovation Management, 35*(5), 808–838. DOI: 10.1111/jpim.12460.

[10] Wolf, V. & Lüttenberg, H. (2020). Capabilities for ambidextrous innovation of digital service. In *Wirtschaftsinformatik (Zentrale Tracks)* (pp. 1132–1138). https://www.researchgate.net/publication/338656086_Capabilities_for_Ambidextrous_Innovation_of_Digital_Service

[11] Coldwell-Neilson, J., Cooper, T. & Patterson, N. (2020). Capability demands of digital service innovation. In K. Sandhu (Ed.), *Leadership, management, and adoption techniques for digital service innovation* (pp. 45–64). IGI Global. DOI: 10.4018/978-1-7998-2799-3.ch003.

[12] Dejakawincool, P., Jeerapattanatorn, P. & Sripan, T. (2026). Digital technology skills learning for sales employees: A scoping review. *Journal of Education and Learning, 15*(3), 170–179. https://ccsenet.org/journal/index.php/jel/article/view/0/52676

[13] Moker, A., Brosi, P. & Welpe, I.M. (2020). How to digitalize inseparable service processes: The enabling role of internal and external support for innovation. *Business Research, 13*(3), 1145–1167. DOI: 10.1007/s40685-020-00119-9.

[14] Martilla, J.A. & James, J.C. (1977). Importance-performance analysis. *Journal of Marketing, 41*(1), 77–79. DOI: 10.1177/002224297704100112.