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IT Service Well-being, in the Higher Education Ecosystem

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Abstract

The holistic and systematic comprehension of service well-being is garnering increasing attention among scholars. The holistic understanding of Service well-being is significant since it helps to clarify the multi-actor and multi-level nature of complex services, such as IT services. The majority of research conducted in the IT service field primarily examines individual and micro-level interactions, neglecting the significance of a comprehensive and systemic perspective on service well-being. The study discussed in this article aims to overcome these constraints by examining the well-being of IT services from a “service ecosystem” standpoint. The research used an interpretative approach to construct a middle-range theory using a case study and grounded theory methodology within a higher education institution. The results uncover the factors that contribute to well-being and the effects on several levels of the IT service ecosystem (Micro, Meso and Macro) including Service encounter, Service facilitation, and Service integration levels. This study enhances the existing research on well-being in the IT service context by presenting a holistic framework for service ecosystem well-being which has significant theoretical and practical contributions.

Keywords Information systems · IT service management · Service-dominant logic · Qualitative research

Introduction

Information technology (IT) services develop and maintain information systems that connect with individuals and processes to deliver services for business [1, 2]. IT service can be defined as: “a service provided by an IT service provider that is made up of a combination of information, technology, people and processes” [3]. IT services can fuel the innovation and digital transformation required to guarantee the survival and development of businesses in the rapidly expanding and changing global economy. Organisations are currently experiencing the challenges of economic uncertainty and societal pressures, which are placing significant demands on them to offer IT services with effectiveness and efficiency to achieve their strategic goals [4, 5]. The IT service presents an important challenge due to its complex and ever-changing nature and further investigation is required to explain such complexity [6, 7].

In the field of service research, the concept of well-being is gaining traction [8–11]. Most research on service well-being has been focused on a micro-perspective, meaning the processes, behaviours, and perceptions of users and service providers at the individual level [12–14]. The micro-focused studies do not incorporate the elements of a system and fail to highlight the complex and social nature of well-being [9]. When organisations grow in size and complexity, there must be a shift in focus from dyadic interactions at the micro level to the higher levels of social and institutional interactions at the meso and macro levels [15]. Hence, there is a strong need to adopt a holistic approach, such as a *Service Ecosystem* in which individuals are interrelated, and interdependent in multiple levels of service exchange [16, 17]. The “Service Ecosystem” approach is widely regarded as the main unit of analysis for theoretical explanations [18, 19].

Following the growing interest in the understanding of system well-being, scholars introduce well-being as an important indicator of “system betterment” [20] that results in “shared value creation” [10] across the service ecosystem. Leo, et al. [20] interpret the system well-being as “the extent to which a system (including all nested actors) evaluates its present conditions in terms of fulfilling its needs and contributing to the betterment of itself and others in the

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system". This conceptualisation represents "actors' assessments of the capabilities of a system to fulfil their needs." Despite the interest in more investigation on the well-being of service systems [8, 21], there is still a significant gap in the 'conceptualisation' of the well-being phenomenon [10]. Researchers also emphasised the need for more understanding of the systematic aspects of well-being that are capable of explaining the complexity of service interactions [20, 22]. This research is significant for the context of IT service because it helps to understand better how well-being manifests itself in a complex service ecosystem that incorporates multiple actors including customers, IT users, service providers, IT employees, and external entities with varying levels of interactions and trade-offs [6].

This research is motivated by the need to better understand well-being in complex IT service ecosystems. We leverage the multi-level conceptualization of context by Chandler and Vargo [17] and the system well-being definition by Leo, et al. [20] to conceptualize well-being in the context of the IT service ecosystem. The service ecosystem approach is rooted in S-D logic and includes three levels of aggregation: micro, meso and macro. These levels are interconnected and dynamic relationships between actors shape the service ecosystem [17, 23].

The current study attempts to answer the following main question: How could well-being be conceptualized in an IT service ecosystem? The aim of current research with the explanatory nature [24] is to build a theory [25] that conceptualizes well-being in an IT service ecosystem. For this purpose, the chosen methodology is a 'grounded theory approach' to build an empirically grounded framework. This qualitative research includes two phases. In the first phase, the focus was on IT supervisors, IT managers and IT directors and the perceptions and viewpoints of the service provider side which was reported in the previous paper of the authors [26]. In the second stage of the study, researchers investigated the experiences of the IT service users and customers and complemented the previous work to gain a comprehensive perspective of the well-being phenomenon. The findings identified three levels of well-being drivers and outcomes and enhanced the understanding of the interconnections between levels to enhance well-being.

The chosen case study is an Australian higher education institution since IT well-being in the higher education sector is crucial for both theory and practice [26]. Universities are complex organisations that necessitate adequate IT services to fulfil their mission [7]. Their IT service is complex as it includes multiple human actors who are engaged with a variety of applications, platforms, academic systems, and cloud applications to offer quality conditions for teaching, learning and research activities while supporting the management processes [27].

This research has multiple contributions to the IT service domain. Adopting a multi-level conceptualization approach, this research investigates well-being drivers and outcomes in the IT service context which previously have not been explored. Moreover, it provides an ecosystem approach to explain the interactions between multiple actors from the micro level of one-to-one interactions with users (IT service encounter), to the meso level of technology-oriented IT teams and individuals (IT service facilitation) and the macro level of Business-oriented teams and individuals (IT service integration). The study also contributes to middle-range theory building [28] (same as Brodie, et al. [29]) and connects the metatheory of S-D logic with empirical findings in a specific IT service context.

The practical contribution of this research reflects on the potential for well-being improvement at the collective and holistic levels of the IT service ecosystem that is not limited to the individual level and dyadic interactions. Decision-makers should consider the interconnections between and across IT service levels that improve or damage the IT service's well-being. In addition, by understanding and employing well-being drivers, decision-makers could anticipate positive outcomes for the IT service's well-being.

Background

Well-being

Well-being has various definitions and meanings across domains [30] and in the majority of disciplines, the concept of well-being refers to the experience and perception of individuals. For instance, psychological well-being refers to cognitive and affective evaluations of an individual's life [31]. In organisational behaviour research, well-being is reflected in the health of employees and the organisation [32], while in economics the effects of income and unemployment on well-being are the main focus [10, 33]. In service research, the focus of well-being is mainly on service consumer [13] and service employee well-being [34]. There is a lack of research on well-being at more collective and holistic levels [21]. While some research at more holistic levels exists in service domains such as financial studies [35], healthcare [12] and social services [36], there is a deficit in IT services. The notion of well-being in the IT service ecosystem at a collective level is especially important as services, although co-created individually, are rather designed for the collective [9].

Service Ecosystem

A holistic perspective on well-being is facilitated by the concepts of service systems and ecosystems. Service ecosystem is an important theoretical orientation of S-D logic that is able to address the multidimensional structure of the dynamic world. S-D logic has a network view that is not a simple static connection of people, resources, and products. It has a dynamic structure of service provision and service exchange [37] that follows a purpose in the sense of individual well-being, as a partial function of collective well-being [18]. A service ecosystem is defined as a ‘relatively self-contained, self-adjusting system of resource-integrating actors connected by shared institutional arrangements and mutual value creation through service exchange’ [38]. The service ecosystem has a multi-level structure, which means higher-level structures shape from lower-level interactions [39]. These levels are not isolated, rather they present different analytical perspectives. Hence, for analysing through an ecosystem lens the analysis “oscillates” among micro, meso and macro levels [40]. In other words, researchers should investigate value or well-being at and from multiple levels, as well as the relationships among those levels to reach a better understanding of how value and well-being are co-created [17]. At the micro level of the service ecosystem, firms-customer interactions as service encounter [19] are central. At the meso level, the focus of analysis upgrades to the triads and interactions within the focal firm. At the highest level, the macro level, the focus is on the market, society and community [17].

Well-being in Service Systems and Ecosystems

A holistic perspective on service ecosystems facilitates an understanding of well-being as a characteristic of the system rather than the individuals. While some scholars believe that well-being is an end state that enables the whole system to cooperate [41], other researchers suggest that well-being is not an optimal situation for the ecosystem [42], instead, it has multiple goals across different layers of the ecosystem [20]. Service system well-being [11, 20] shows “the aggregate perception of actor assessments of the system in terms of the fulfilment of their collective, and by implication, the satisfaction of their individual needs”. Hence, the systematic conceptualisation represents how collective well-being emerges in a service system. Leo, et al. [20] introduced domains of well-being including strategic, governance, leadership, resource, community, social, collaborative, cultural, existential, and transformational that emerge at different levels of the service system and have influences on each other and contribute to overall service system well-being.

The service ecosystem perspective focuses on contextual value as “an increase in the viability or well-being of a system” [23]. Thus, well-being and value can be both experiential and contextual which means they could be considered differently from different viewpoints in different levels and contexts [43]. This interpretation means well-being can be changed depending on the change in well-being of an individual or social system over time [44]. Furthermore, considering multiple determinants and goals across levels and defining and exploring well-being within them is a complex issue [45]. Hence, there are significant challenges related to identifying the characteristics of service ecosystem well-being. According to S-D logic, Frow, et al. [10] propose the conceptualization of service ecosystem well-being as “a holistic, dynamic, positive state that is contextually determined and is characterized by: practices that achieve aligned configurational fit; institutional arrangements that are purposefully guided by a shared worldview; levels of the ecosystem that are iteratively reinforcing, co-evolving and self-adjusting; resilience and an ability for the ecosystem to adapt to disruptions; emergence through the adoption of flexible, resource integrating practices; and resulting in shared value co-creation”. Researchers call for more research to better understand aspects of well-being in service ecosystems [26, 46].

Method

The study is qualitative which is more appropriate for the purpose of explanatory research and is based on the Grounded Theory approach [26, 47, 48]. For the purpose of the current study at different levels of the ecosystem, an interpretive case study approach was used to define the units of analysis [49]. Based on this approach, a case study with embedded units of analysis was used. The grounded theory approach was selected since the main goal of this approach is to propose theories that are strongly linked to the field data [50] and the explanatory development of theory is a desired outcome [51] of the current study.

Research Setting and Data Collection

The service ecosystem must be investigated in a particular context [52]. Since enhancing well-being is a critical success factor for higher education organisations, this context is chosen as a suitable setting for the study. Improving IT service and its well-being is a priority for educational institutions, and investigating well-being dimensions in this context is highly appropriate and demonstrates the practical significance of current research. Based on the 2020–2025 strategy plan of the current case study, the university

invested approximately \$350 million in digital infrastructure, including \$20 million on educational technologies such as virtual learning and digital research infrastructure, to support the university's main learning and teaching, research, and engagement functions: "We will simplify the technology environment to ensure we provide services that are easy to access and use. We will take advantage of technological shifts and implement services that are fit-for-purpose for the community, reduce time undertaking administrative tasks and improve the student and staff experience [53]."

The chosen university is a major educational institution in Australia that has over 50,000 student enrolments and spans several campuses. Its IT department, where the investigation is conducted, has 320 employees. The IT department has a complex structure including seven main IT domains: IT learning and teaching (learning, teaching, and student experience), IT foundations (infrastructure, network, and platforms), IT research (E-research, data and information management), IT operations (strategic delivery and business relationship), IT service centre (performance and field service management) and IT value management (IT strategy, planning and engagement). Each IT domain consists of different layers of IT engineers, IT supervisors, IT managers and IT directors who are about various groups of users and customers (such as students, researchers, staff, and academics). This IT service is responsible for delivering ICT and related practices and processes to facilitate research, learning and teaching for users and customers of the institution (Strategy Plan 2020–2025) [53].

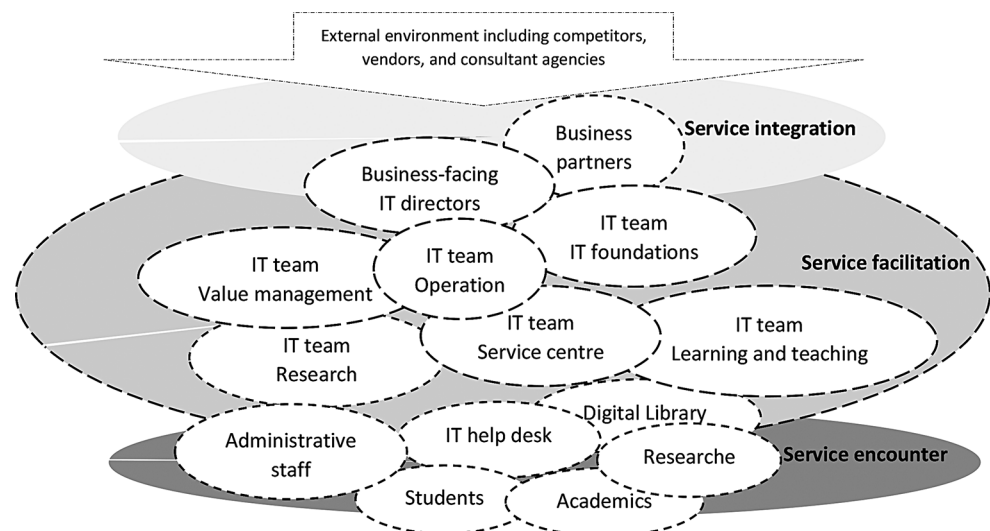
This dynamic and multi-level setting not only represents one-to-one interactions between ecosystem actors on the micro level but also shows a network of interactions and trade-offs in higher levels of teamwork, within the IT department domains, with business actors and the external environment of the organisation. This indicates that as enterprises grow in complexity, the emphasis moves from

an initial focus on the dyadic interaction level to a focus on collective and systematic levels [15]. The IT service division represented the case study [26] with its embedded business-oriented teams and individuals (macro level), technology-oriented teams and individuals (Meso level), and the embedded individual IT actors in encounter with users (students, researchers, academics, and staff) (micro level). Figure 1 shows the case study actor-to-actor ecosystem and the Micro (Service encounter), Meso (Service facilitation) and Macro (Service integration) levels.

The request for participation was sent via email to potential candidates at random. As we conducted interviews by the snowball sampling method, we identified other stakeholders involved in the IT service process and gradually started to know the ecosystem. The open-ended interviews were focused on IT directors, managers, and administrators in the first phase of the study, with a flexible design [26]. Based on the outcome of the first phase of the study, IT service users and customers are critical actors in the ecosystem and without considering their viewpoints, we could not reach a comprehensive understanding of the phenomenon. So, researchers followed the second phase of the study based on the service user perspective (Fig. 2).

The first phase has been conducted through interviews with 15 IT decision makers including 5 business-focused IT directors, 3 IT heads, 4 IT managers and 3 IT supervisors. We have conducted 4 pilot interviews to receive feedback on interview questions to ensure the validity of the interview protocol and guidelines. Some examples of the interview questions include: What is your overall experience with the IT service of this organisation? What does a well-functioning IT service mean to you? Is your IT service well-functioning? Why? (Questions inspired from [20]). The researchers resolved the possibility of informant bias by guaranteeing anonymity to the informants [54] and employing open-ended questioning to give informants the

Fig. 1 IT service ecosystem (actor-to-actor map)



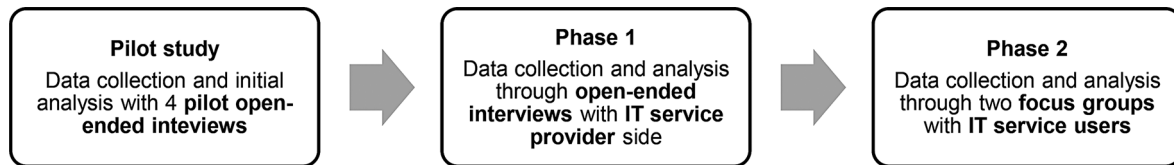


Fig. 2 Data collection and analysis phases

Table 1 Study participants and data collection details

Data source	Code	Description	Position in IT service ecosystem	Duration (min)
Interview	M1	IT service manager	Technology oriented - Meso level	60
	M2	Strategic delivery manager-learning and teaching	Business oriented - Macro level	70
	H1	Head of IT planning, practice, and performance-	Business oriented - Macro level	50
	D1	IT director-digital foundations	Technology oriented -Macro level	45
	D2	IT director- value management	Business oriented -Macro level	70
	H2	Head of IT service centre	Technology oriented -Meso level	40
	S1	Supervisor- service management	Technology oriented -Meso level	50
	S2	Supervisor- -IT service centre	Technology oriented -Meso level	45
	H3	Head of IT planning, practice, and performance-value management	Business oriented -Macro level	80
	D3	IT director-learning and teaching	Business oriented- Macro level	75
	M3	Product manager-IT service centre	Technology oriented -Meso level	85
	D4	IT director- value management	Business oriented -Macro level	60
	D5	IT director- Research	Business oriented -Macro level	65
	H4	Head of Digital Library Services	Technology oriented -Meso level	50
Focus group 1	F1	5 participants including PhD students, undergraduate students, master's degree students	IT service users- external Micro level	90
Focus group 2	F2	4 participants including an Admin officer, Executive Assistant, Associate professor, and Senior lecturer	IT service users- internal Micro level	80

freedom to answer questions as they prefer. In the second phase of data collection, 2 online focus groups have been conducted with 5 internal (staff, Academics) and 6 external (students) users of the IT service. Table 1 provides an overview of the study's participants and their position in the service ecosystem.

Data Analysis

The process of data analysis began with the open coding process using NVivo software. In this bottom-up approach, a thematic coding procedure has been conducted to identify, analyse, and report emerging themes that address the data's contextual focus. The themes were identified through a multi-step process [47]. In the first step, the micro, meso, macro, and inter-level codes about IT service well-being were identified. The first-order codes were then transformed into second-order themes that represent research-centric and theoretical categorizations of codes. As new findings emerged through data analysis and memo writing, additional data were collected to validate the theoretical interpretations and the final framework structure. Thus, the theory was developed in parallel with data collection and analysis. In an iterative process, more data collection was

guided by patterns of well-being drivers and outcomes identified through preliminary data analysis.

Findings

Chandler and Vargo [17] three-level conceptualization of context (micro, meso, and macro) was used to analyse IT service ecosystem well-being. Research findings revealed the well-being drivers and outcomes at each of the three levels. At the micro level, service-for-service exchange occurs directly between actors in dyads in an individual level of user-service provider. Thus, the **micro level** represents the perception of respondents of well-being considering the IT service in dealing with end users and customers (Service encounter). The meso level represents the technology-oriented IT teams and individuals and their interactions. At this level, actors connect directly or indirectly to serve one another. So, the **meso level** represents the perception of respondents of well-being considering the IT service at the service facilitation level. Macro-level actors include business-oriented actors. Thus, the **macro level** represents the perception of respondents of well-being considering the IT service about IT direction and business alignment (IT

service /business integration). The exchanges at each level (e.g., between IT workers and across IT teams) and among levels (e.g., between users and IT engineers, between IT managers and business actors) shape and enable the emergence of the ecosystem in an ongoing process. Table 2 shows the definition of three ecosystem levels [26] and their interpretations in the current study.

Figure 3 shows the static data structure [48] that provides an overview of the first-order codes (informant-centric), second-order codes (researcher-centric) and aggregated dimensions that represent the fundamental constructs of the framework. The first-order analysis represents the informant-centric terms. After considering similarities and differences to make categories, researchers as knowledgeable agents provide a 2nd-order theoretical level of themes. In the next step, the emergent 2nd-order themes were aggregated even further into overarching dimensions.

The resulting grounded theory framework should demonstrate the dynamic relationships between concepts and highlight all data-to-theory connections [48]. Study results enabled multilevel identification of IT service well-being drivers and well-being outcomes in micro, meso and macro levels and the interrelations across those levels (Fig. 4).

IT Service Well-being Drivers

Value-driven Approach and Resources (Macro - Meso)

Based on the opinion of the participants, one of the key drivers of having a well-functioning IT service is adopting a value-driven approach. This means any action that does not create value is a waste of resources for the IT department and the organisation in general. One of the respondents mentioned that: *“I think a well-functioning IT service has a few critical elements, but it all does tie back to value. So, if the service that you are providing is not delivering value for someone then there’s no point really. Any kind of adjustment or change that you would make to that service if doesn’t tie into that value proposition, then it’s a pointless exercise in some ways (S1)”*. The value approach should be user-centred to direct resources to value creative practices and processes and decrease the risk of wasting limited resources of the organization.

As mentioned above, ‘resources’ are also critical for value creation and service well-being. In addition to the value-driven approach, adequate access to tangible (e.g., human resources) and intangible resources (e.g., expertise) is fundamental to a well-functioning IT service. An IT supervisor noted: *“Well-functioning IT service is happy people with adequate resources and an adequate number of staff on deck, with the tools necessary to do the job. If we kept it to that, we wouldn’t have a problem. particularly resource is important (H3)”*.

“In-depth” Understanding of Actor Needs and Wants (Micro - Meso)

Traditional IT service decisions are top-down decisions and do not necessarily reflect the actual needs of IT service actors. This is not a suitable approach as IT users and customers are critical actors who are in direct contact with the technology and service. So, decisions should be based on the bottom-up approach from the micro level of users to the meso level of the IT department and the macro level of business actors. This user-centric approach is vital for value-based decisions at the macro and meso levels. One of the interviewees mentioned: *“Having the energy within the tier zero and tier one (directors and top managers) to talk to the Level 3 engineers and make sure that all the teams work together to resolve that incident from the moment the clock starts ticking to make sure that the customers’ needs are fulfilled (D2).”*

Well-being is not about “touching the surface” and fixing the incident but is about a real connection and exploring the issue to access and understand the real want. Well-being is about uncovering the present and future needs of the users. *“...you might be saying: I want this to happen, but that will only meet part of your need. It’s kind of understanding how we solve the problem, not just treat the symptoms(S2)”*. The “human element” also is important. *“A well-functioning service needs to be a partner. It needs to be someone that has empathy and tries to understand people’s needs (F1)”*. Empathetic, deep conversations with users are important and need to be as a “formal mechanism” to receive needs in a systematic way. There is a strong emphasis on providing users with clear communication channels that they can use

Table 2 IT service ecosystem levels and related interpretations

levels	Definition [17]	Definition in the IT service context	Actors and exchange in this study
Micro	Service exchange among actors as dyads	IT user-service provider dyadic exchange	Direct service Exchange between IT front liners such as help desk serving students, staff, and researchers
Meso	Service exchange among dyads as triads	Indirect service exchange through IT teams including engineers, supervisors, managers	Indirect Exchange between technology-oriented IT teams, engineers, supervisors, and managers
Macro	Service exchange among triads as ecosystems	Indirect exchange through IT directors, business partners, and external entities	Indirect exchange between business-oriented IT actors and business partners such as CFO, IT vendors and external consultants

Fig. 3 Data structure

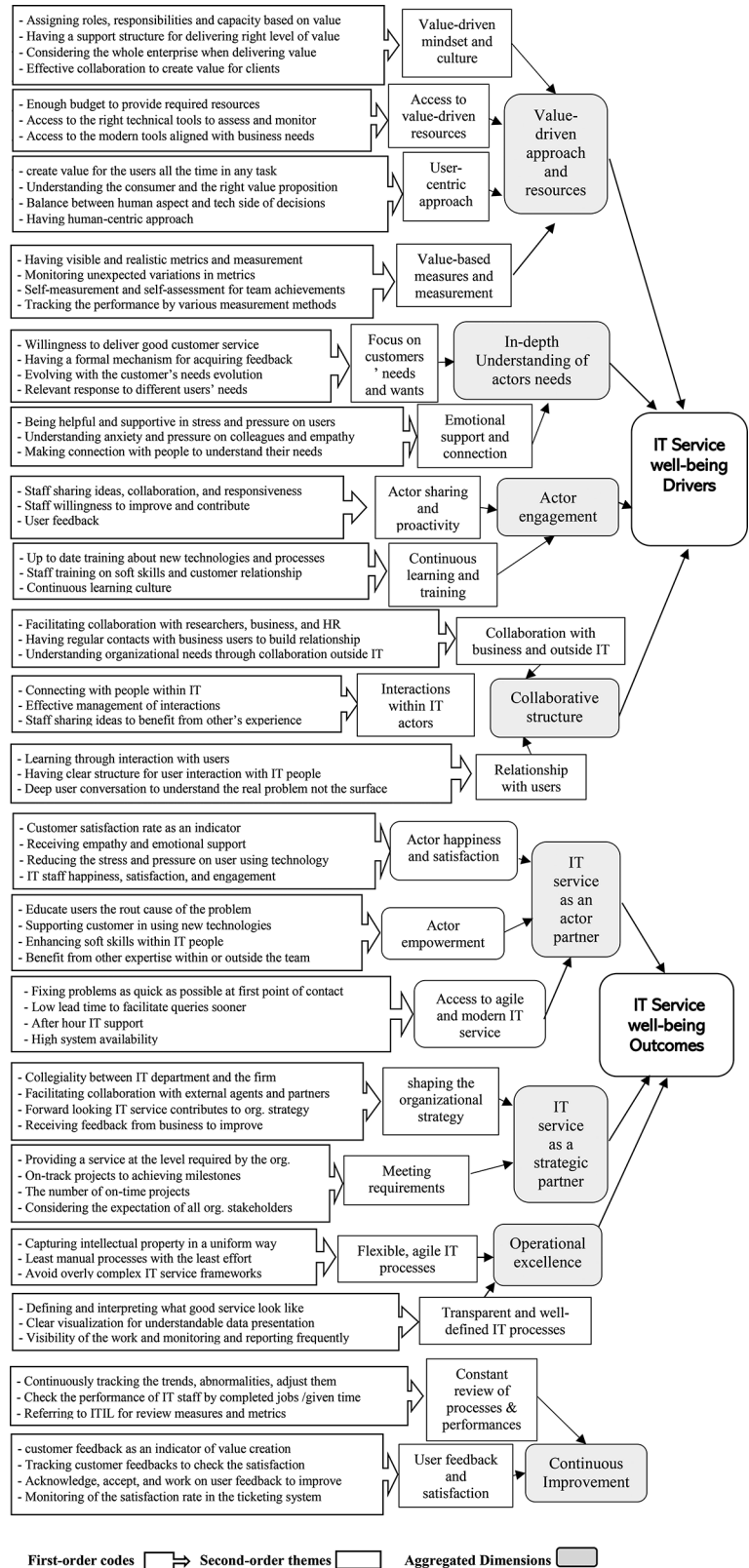
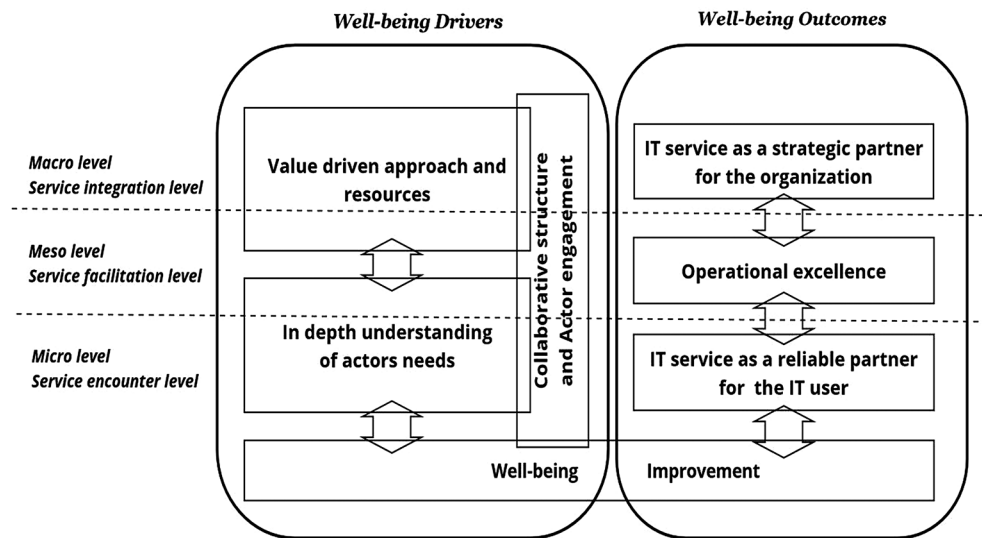


Fig. 4 The empirically grounded framework for the IT service ecosystem well-being



to express themselves. One of the internal users mentioned: *“I think it’s important to have an information-sharing channel to let people know who should be responsible for what. I think that’s important. Such kind of mechanism is missing (F2).”* This two-way channel as both the provider and user pointed out, it’s an effective mechanism for understanding the needs in an effective way.

Collaborative Structure and Actor Engagement (Macro-Meso- Micro)

Most informants believe that collaboration and effective communication within and across three levels of the ecosystem are substantial to well-being. Having a well-defined structure for such collaborations is vital to reducing confusion about communication channels between actors and minimising wasting resources, and actor dissatisfaction which is destructive to IT value and well-being.

Relationships trigger deep *conversations* and are critical for understanding the needs of users and even finding the root cause of the problems. One of the participants mentioned: *“A healthy IT service is when you start to hear from people, I have a lot of contact with my business users and having regular contacts and building that relationship, so they can pick up the phone or attend regular catchups to share their concerns and needs(H1).”* These interactions should take place between IT department actors and teams to connect the different types of expertise through sharing of information, expertise and experiences: *“A well-functioning IT service ... does require that collaboration with other teams and need to be able to provide that knowledge to us because at the end of the day, it’s about providing value to the client, so the more information that other teams can provide us is the more the value that we can provide to a client (D5).”* The relationship should go beyond just

the IT actors and expand to the business-oriented actors on a broader macro level: *“How is technology going to provide our ability to service students or collaborate with other researchers or ensure that the financial accounting system of the organisation is compliant with all regulatory bodies. IT service from that sense means an understanding of what the organisation is trying to do (M2).”* Collaboration enhances the reliability and trust of business in IT decisions and investments.

This communication is critical at the micro level as it provides the mechanisms and channels for users to reflect on their needs in an easy and fast way. They also expect IT service provider to keep track and record of their requests for the future. As the user participants repeatedly emphasised: *“I think clear communication is important when dealing with IT services because sometimes we need to explain things over and over again and I think part of it is also because they don’t have the record (F1).”*

According to the respondents’ opinions, sharing ideas and the proactivity of IT actors is an important indicator of actor engagement. When people share their ideas and experiences, it means they are motivated to contribute to the service ecosystem: *“What I realized it’s a sign of different health. How do people respond? Are they putting new ideas out there? Are they trying to improve their processes? And most importantly: are they engaged? (D3).”* Continuous feedback from various service actors could be also an effective way of monitoring contribution and engagement. To facilitate engagement, a culture of ongoing and up-to-date training and learning is necessary to make sure that all actors have the proper skills and are ready to participate in the problem-solving process. The training includes both technical and IT-related skills as well as communicational, relational and in general soft skills that enhance effective relationships and service well-being: *“We provide soft skill training such as*

customer relationship type of training. Because there is a human element that whether on the phone, face to face or other ways of dealing with the customer, they need there... (M1)". On the micro level and in the interaction with users also, IT service providers need to go beyond fixing incidents to educate users: "For providing a full IT service, I would expect my team to help the customer realize if there's a self-service option and let them know. Part of their role is educating, I believe, so I think they fixed the problem, but they don't explain to the customer why the problem occurred and how to prevent it. Possibly going forward (H4)" This training is especially important in terms of new technologies and IT services and IT users need to receive adequate training and support until they feel engaged with the new system.

IT Service Well-being Outcomes

IT Service as a Strategic Partner for the Organisation (Macro)

At macro and meso levels, IT service could be a strategic partner for the organisation. Meeting the organisational requirements is the first part of this strategic position: "If I was using well-being in the context of systems, systems provision, systems availability, then well-being would be providing a service at the level that is required by the organisation (S2)" or another participant addressed the point in this way: "IT well-being is the status of how well the IT service group or IT services as a whole, meet the expectations of clients, customers and end their company institution and how you measure that. (H2)".

Related to the measures for achieving the requirement, having an achievable Service Level Agreement (SLA) and reporting on them frequently (M2), is one major criterion, based on the opinion of interviews. IT service is integrated with the organisation's service, and IT service strategy could be seen as a critical part of the organisational strategy. In other words, in a well-established IT service, IT service strategy is not only aligned with organisational strategy but most importantly is seen as an integrated part of the organisation's service. For example: "Well-being is about understanding the impacts of a service on other services of the organisation. It's all going well or It's not going well. This is why I'm an advocate of that overall well-being (D4)" another participant mentioned that: "I think a good IT service should be helping build that strategy, not just delivering on whatever the company strategy is (D1)". Modern IT service is not an isolated silo that is a cost factor for the organisation, but it has a strong competitive advantage for the organisation and co-create value at a strategic level: "It's not sufficient for an organisation to just continue what it was doing and bolt on IT on the side. They need to be

leading or having information technology lead the organisation ... (M2)".

Operational Excellence (Meso)

Adopting a value-driven approach and resources with a focus on user needs and wants, assures the organisation that they invest time and capital in the right choices on technology and information systems. Such a futuristic approach to IT operation will address both the current and the future requirements for that IT service to make sure that decisions have enough flexibility for the uncertain and ever-changing user requirements. "[Smart] decisions that will support not just the immediate requirement, but there are support the future as well. So, the future changes we can still, this decision now won't adversely impact that. it still gives you room to move if you need to, with what the future might hold. So, to me, it's constantly evolving (S1)."

At the operational level, rigid and overly bureaucratic systems can limit the flexibility to change and are therefore a barrier to the service well-being: "A lot of IT traditional frameworks and systems are overly complex, overly bureaucratic, overly governed, and so it makes some very rigid and that's the problem when it comes to the real world and us needing to be agile as things change so often, but IT service processes and systems don't seem to flex with what's needed, and it creates very long lead times (M2)." Our interviewees believed that automation, self-serve technology, omni-channels, and personalization could be modern options that have the capability to increase IT service agility and flexibility. However, "You don't automate until you're sure of what you're automating for. Otherwise, you might end up with a lot of invested time and capital in the wrong thing, right? (S1)" Our respondents repeatedly indicated that smart decision-making and well-being are underpinned by understanding roles and responsibilities, work prioritization and allocating decisions to the right level of decision-makers and IT workers are the base for having well-functioning IT processes. Besides, clear, and transparent reporting such as performance reporting to the financial committee could help IT actors to better collaborate and understand the progress and the outcomes of other teams and actors. All of the aforementioned approaches to IT operation and implementation will elevate the IT service to a new level of agility, flexibility, and service innovation, which we refer to as "operational excellence".

IT Service as a Reliable Partner for the IT User (Micro)

At the micro level, well-being means the IT service is being seen as a partner that represents how individual actors feel and experience the IT service at the end of the day. A

seamless, effortless service that is easy to learn and easy to understand is the ultimate expectation of such an experience: “So, I think it is seamless and easy to navigate and you don’t need to actually understand who does what(F1).” And “it does get back to a seamless, effortless experience consuming that service.” It is fast and straightforward in resolving incidents that provide an agile and modern IT service ecosystem: “The wait time should be very low... (F2)”.

Another important determinant is empowering service users through the learning and training process. “Learning is like a curve. It was always new technologies. And there’s the adoption of a new way of doing things. Because one technology phases out and new technology comes in(M2)”. The outcome for users goes beyond short-term resolution to finding the root cause of the problem and sharing that with users to increase their confidence in technology. This approach gives long-term power to actors that covers their possible future needs as well as their current requests. Such a positive experience will enhance user satisfaction and happiness. It is not only about users, but the satisfaction and happiness of IT workers are also crucial to service well-being: “It’s about staff well-being as well, staff morale, staff turnover. So that’s one side of the coin and you got to have a happy team to deliver a good service (M1)”. IT service as a partner gives the actors emotional support and empathy that leads to their engagement, satisfaction, and happiness.

Well-being Continuous Improvement (Micro- Meso-Macro)

Respondents agree that continuous improvement is a must-do for all practices and processes of the IT service: “Everything that is working, we always have to constantly review: our processes, our procedures, our knowledge, documentation, our way of doing things now (H4).” To conduct the improvement process, diagnosing deviations and adjusting them quickly, IT service actors need to track all practices, processes, documentation and importantly performance of the service actors to ensure that they achieve the milestones and meet the requirements based on defined measures and metrics. An important and effective way of monitoring and assessing is receiving feedback whether from IT users or business actors to check their satisfaction and continuously receiving their ideas about the service and get advice on how they can be changed and improved based on the up-to-date needs and expectations: “anything which does come back as any sort of feedback, we can improve on. We then acknowledge, accept, and actually work on those, so we reach out to people and say OK, what did we do wrong? How can we improve it? (D3)”. A formal process for getting systematic feedback could facilitate the process.

Discussion

The research findings and data analysis clearly show that investigating ecosystem levels could help to better understand the interrelations and influences across levels and within multiple actors (individuals, IT teams, IT departments, business actors and external entities) that shape and improve the ecosystem’s well-being. This is in line with previous research stating that the understanding of service ecosystems requires a multilevel perspective that highlights the trade-offs between micro, meso, and macro levels of the service ecosystem [17]. Additionally, this research extends upon the existing knowledge that well-being develops within each level and among the levels that influence the whole ecosystem [10, 20] for the specific IT service context. Most research in the IT service area focuses on value creation aspects of such ecosystems as [6] explored the value creation of multi-actor IT service processes but the well-being aspects of such services rarely being considered and explored [26]. This research complements Heidari, et al. [26]’s research on IT service well-being which was focused on IT service provider actors by considering the IT service users’ perceptions and understandings of IT service well-being which are critical parts of the IT service ecosystem and consequently, provides a holistic framework for conceptualising IT service ecosystem well-being.

The emergent characteristics of IT service well-being: drivers and outcomes, occur at multiple levels. Based on the grounded framework, within and across each level, well-being drivers influence each other; enabling well-being outcomes and contributing to IT service quality, agility, and robustness. Value-driven approach in macro and meso levels, deep understanding of service actors’ needs in micro and meso levels, supported by collaborative structure and actor engagement across micro, meso and macro levels are the well-being drivers. This finding explains Frow, et al. [10] comprehension of the ‘shared worldview’ that increases the efficiency and effectiveness of resource integration and enhances well-being. As they declared, adopting a ‘shared worldview’, ‘shared purposes’, or ‘shared mindset’ has the potential to have a significant impact on the well-being of actors within the service ecosystem. This worldview is derived from the current study of the IT service ecosystem, which has a shared value-based approach and resources, as well as a shared focus on customer needs and wants as well-being drivers. This research argues that ‘resource well-being’ [20] here mostly refers to the value-based resources that contribute to the betterment of the IT service well-being. We also contend the Leo, et al. [20] interpretation of ‘collaborative well-being’ presented at the meso level, as a driver related to all ecosystem levels that contributes to the actor engagement within and across all ecosystem levels.

One outcome of such a well-functioning, well-structured and well-defined IT service is the experience of IT service as a strategic partner at the macro level, for the organisation. This is in line with the ‘Strategic and governance well-being’ presented by Leo, et al. [20] which refers to ‘the extent to which a service system supports its actors to function well in seeking new opportunities and goals and providing well-functioning policies and procedures for the betterment of the system’. Based on the current context of IT service, this opportunity is meeting organisational needs and the alignment and integration of IT service with businesses that contribute to the betterment of the IT service at the macro level. The outcome at the meso level is operational excellence, which demonstrates agile, future-focused, and innovative IT service that corresponds to the ever-changing world and the growing demand for superior access to technology and IT service. The other outcome is the partnership experience for IT users at the micro level, which means that IT users benefit from IT services as a reliable and friendly partner to fulfil their needs and experience a better quality of life with the help of such IT services. Such interpretation of well-being at the micro level goes beyond the ‘transformational and existential well-being’ [20] to a two-way interactive partnership between the service provider and user that results in value co-creation [10] for the counterparts. The continuous improvement in micro, meso and macro levels assures the sustainability and quality of the IT service over time, which is crucial to service ecosystem resilience and ability to adapt to disruptions [10].

Bringing together study results, the lens of the service ecosystem [18] and the reference to the notion that “well-being is a holistic, positive and dynamic state that is

contextually determined” [10], this research proposes the following conceptualization of IT service ecosystem well-being in each level and for the whole IT service ecosystem (Table 3).

Conclusion and Future Directions

The current study is guided by the main question of “How can well-being be conceptualized in an IT service ecosystem?” The emergent characteristics of IT service well-being: drivers and outcomes, occur at multiple levels. Based on the grounded framework, within and across each level, well-being drivers influence each other; enabling well-being outcomes and contributing to IT service betterment and well-being. Value-driven approaches in macro and meso levels with a deep understanding of needs in micro and meso levels are the well-being drivers. While the collaborative structure and actor engagement support and enhance the well-being drivers of the IT service ecosystem. One outcome of such a well-functioning, well-structured and well-defined IT service is the experience of IT service as a strategic partner at the macro level for the organisation. The other outcomes are the operational excellence and partnership experience for IT users at the meso and micro levels, which means that IT users benefit from IT service as a reliable and friendly partner to fulfil their needs and experience a better life with the help of such IT service. The continuous improvement in micro, meso and macro levels assures the quality of the IT service over time. Table 3 provides the well-being definition for the micro, meso and macro levels of the IT service ecosystem.

Table 3 IT service ecosystem well-being and definitions

Service well-being	Definition	Resources
Service system well-being	The extent to which a system (including all nested actors) evaluates its present conditions in terms of fulfilling its needs and contributing to the betterment of itself and others in the system. This conceptualisation represents actors’ assessments of the capabilities of a system to fulfil their needs.	[20]
Service ecosystem well-being	Service ecosystem well-being is a holistic, dynamic, positive state that is contextually determined and is characterized by: practices that achieve aligned configurational fit; institutional arrangements that are purposefully guided by a shared worldview; levels of the ecosystem that are iteratively reinforcing, co-evolving and self-adjusting; resilience and an ability for the ecosystem to adapt to disruptions; emergence through the adoption of flexible, resource integrating practices; and resulting in shared value co-creation.	[10]
Macro IT Service Integration level	The extent to which an IT service ecosystem supports its actors to adopt the value-based approach and function well in providing access to value-based resources to enhance the IT/business strategic partnership and contribute to the betterment of the whole service ecosystem and shared value co-creation.	Current research
Meso IT Service Operational level	The extent to which an IT service ecosystem supports a structure for collaboration among actors and functions well to achieve operational excellence and contributes to the betterment of the whole service ecosystem and shared value co-creation.	Current research
Micro IT Service Encounter level	The extent to which an IT service ecosystem functions well in understanding user needs and wants and providing the opportunity for actors’ engagement to enhance the partnership with users and quality of life and contributes to the betterment of the whole service ecosystem and shared value co-creation.	Current research
IT Service Ecosystem well-being	The extent to which an IT service ecosystem supports interactions and collaborations within and across service encounter, service operation and service integration levels to contribute to the betterment of the whole IT service ecosystem and its actors.	Current research

Our observations help to change the way we think about well-being concept as an individual characteristic to a holistic and multi-level phenomenon. Based on the research outcomes, the following definition for the IT service ecosystem well-being is provided:

IT service ecosystem well-being is a holistic, positive, and dynamic state that is driven by a value-based approach and in-depth understanding of IT actors' needs and supported by collaborative structure and actor engagement while continuously improving within and across micro, meso and macro levels of the IT service ecosystem. Such well-defined, well-structured, and well-functioning IT service by providing operational excellence, is not only a strategic partner for the organisation but also a reliable and sustainable partner for the IT users.

This study contributes to research on well-being in the context of IT service by providing the well-being conceptualization in the IT service context which has been barely investigated. Adopting an ecosystem view helps in understanding the dynamics of multiple actors' interactions in the micro level of individual and dyadic interactions between service provider and user (service encounter), meso level of technology-oriented teams and individuals (service facilitation) and macro level of business-oriented teams and individuals (service integration). Align with the increasing attention and expectation for taking a midrange theoretical approach to enable being more prescriptive and conducive to empirical evidence [15], this work contributes to the development of empirically grounded middle range theories [29], bridging the S-D logic high-level conceptual perspective with empirical findings in a specific IT service context. Moreover, this study complements the previous study of the authors [26] by considering the perspective of the IT service user side which is critical to a holistic understanding of the service ecosystem.

The multi-level understanding of IT service well-being provided by the study has practical and managerial implications for IT service decision-makers. As drivers of well-being, business actors, IT directors, IT managers and IT supervisors should have a value-driven approach to guide decision-making. This approach saves time, money and other valuable resources, increases the reliability of IT decisions and investments and gives a more strategic position to IT decision-makers. This mindset is not complete without the determination to in-depth understanding of actors' needs and wants at a micro level. Then IT decision-makers need to make smart decisions based on the right measures and metrics and implement a collaborative structure within which all actors can easily collaborate, engage, and contribute to

the ecosystem and its well-being. Actor engagement is a critical determinant that IT managers can use to evaluate the level of collaboration and implementation of their decisions. If managers and directors commit to defining, structuring, and implementing the IT service considering well-being drivers, they will acquire significant strategic outcomes for the organisation in general and valuable and sustainable outcomes for the users and all these outcomes will result in the betterment of the IT service as a whole.

This research relies on the data from only one educational institution. This focus enabled an in-depth analysis of the ecosystem well-being which is a context-specific phenomenon [10]. Studying different settings could be interesting as it highlights how the nature of the sector impacts the well-being drivers and outcomes at different levels. A comparative study of education and other settings might be another venue for further research. We also refer to the thoughts around generalizability from the grounded theory approach and case study. Generalizability is achievable through the grounded theory approach as the purpose of the grounded theory is to inductively construct a general theory that can answer the research question in the absence or incompleteness of alternative existing frameworks [55]. It is also possible to generalize from a case study if the case generates concepts with obvious relevance to other domains [56]. The above claims are relevant to the current study as IT service in any different organisational setting, has lots of similarities in terms of IT processes, practices, designs, and tools. For example, most organisations use the ITIL framework to direct and manage IT service practices and processes. It is also important to emphasise that this research intends to generalize to theory [57]. Given that well-being can vary over time, a longitudinal study of well-being dynamics may provide further insights.

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Declarations

Ethical Approval This study was approved by the Human Research Ethics Committee of Griffith University (Ethics approval number: GU Ref No: 2021/426).

Informed Consent Informed consent was obtained from all individual

participants included in the study.

Conflict of interest The authors declare that they have no conflict of interest.

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References

- Winkler TJ, Wulf J. Effectiveness of IT Service Management Capability: Value Co-creation and Value Facilitation mechanisms. *J Manage Inform Syst.* 2019;36(2):639–75. <https://doi.org/10.1080/07421222.2019.1599513>.
- Kearns GS, Lederer AL. The impact of industry contextual factors on IT focus and the use of IT for competitive advantage. *Inf Manag.* 41, 7, pp. 899–919, 2004/09/01/ 2004, doi: <https://doi.org/10.1016/j.im.2003.08.018>.
- ITIL service strategy T. T. S. O. o. W. L. Global Best Practice, United Kingdom, 2011.
- Galup S, Quan JJ, Dattero R, Conger S. Information technology service management: an emerging area for academic research and pedagogical development, in Proceedings of the 2007 ACM SIGMIS CPR conference on Computer personnel research: The global information technology workforce, 2007, pp. 46–52.
- Cusick JJ. Business Value of ITSM. Requirement or Mirage? 2020. [Online]. Available: <http://griffith.summon.serialssolutions.com>.
- Lempinen H, Rajala R. Exploring multi-actor value creation in IT service processes. *J Inform Technol.* 2014;29(2):170–85.
- Slied C, Marnewick C. The quest in delivering quality IT services: the case of a higher education institution. *Educ Inform Technol.* 2020;25:4817–44.
- Ostrom AL, Parasuraman A, Bowen DE, Patricio L, Voss CA. Service Research Priorities in a rapidly changing context. *J Service Research: JSR.* 2015;18(2):127–59. <https://doi.org/10.1177/1094670515576315>.
- Anderson L, et al. Transformative service research: an agenda for the future. *J Bus Res.* 2013;66(8):1203–10.
- Frow P, McColl-Kennedy JR, Payne A, Govind R. Service ecosystem well-being: conceptualization and implications for theory and practice. *Eur J Mark.* 2019.
- Laud G., Chou C. Y., Leo W. W. C. Service system well-being: scale development and validation. *J Service Manage.* 2022;ahead-of-print(no ahead-of-print). <https://doi.org/10.1108/JOSM-06-2021-0224>.
- Budrionis A, et al. Impact of the use of electronic health tools on the psychological and emotional well-being of electronic health service users (the seventh Tromsø Study-part 3): Population-based questionnaire study. *J Med Internet Res.* 2020;22(3):e13118.
- Tikkanen H. Characterizing well-being capabilities in services. *J Serv Mark.* 2020;34(6):785–95. <https://doi.org/10.1108/JSM-11-2019-0453>.
- Islam S, Muhamad N, Sumardi WH. Customer-perceived service wellbeing in a transformative framework: Research propositions in the area of health services. *Int Rev Public Nonprofit Mark.* 19, 1, pp. 219–45, 2022/03/01 2022, <https://doi.org/10.1007/s12208-021-00302-6>.
- Vargo SL, Lusch RF. *The SAGE handbook of service-dominant logic.* Sage; 2019.
- Vargo SL, Koskela-Huotari K, Vink J. Service-dominant logic: foundations and applications, *The Routledge Handbook of Service Research Insights and ideas.* pp. 3–23, 2020.
- Chandler JD, Vargo SL. Contextualization and value-in-context: how context frames exchange. *Mark Theory.* 11, 1, pp. 35–49, 2011/03/01 2011, <https://doi.org/10.1177/1470593110393713>.
- Vargo SL, Lusch RF. Service-dominant logic 2025. *Int J Res Mark.* 2017;34(1):46–67. <https://doi.org/10.1016/j.ijresmar.2016.11.001>.
- Akaka MA, Vargo SL. Extending the context of service: from encounters to ecosystems. *J Serv Mark.* 2015;29:453–62. <https://doi.org/10.1108/jsm-03-2015-0126>.
- Leo WWC, Laud G, Chou CY. Service system well-being: conceptualising a holistic concept. *J Service Manage.* 2019.
- Anderson L, Ostrom AL. Transformative service research: advancing our knowledge about service and well-being. Volume 18. Los Angeles, CA: ed: SAGE Publications Sage CA; 2015. pp. 243–9.
- Ranjan KR, Friend SB. An integrative framework of sales ecosystem well-being. *J Personal Sell Sales Manage.* 2020;40(4):234–50. <https://doi.org/10.1080/08853134.2020.1822176>. /10/01 2020.
- Vargo SL, Maglio PP, Akaka MA. On value and value co-creation: a service systems and service logic perspective. *Eur Manag J.* 2008;26(3):145–52. <https://doi.org/10.1016/j.emj.2008.04.003>.
- Gregor S. The nature of theory in information systems. *MIS Q.* pp. 611–42, 2006.
- Rowlands BH. Grounded in practice: using interpretive research to build theory. *Electron J Bus Res Methodol.* 2005;3(1):81–92.
- Heidari M, Torrisi G, Binnewies S. IT Service Well-Being: A Service Ecosystem Approach, presented at the Proceedings of the 25th International Conference on Enterprise Information Systems - Volume 2: ICEIS, Prague, 2023.
- Bianchi IS, Sousa RD, Pereira R, de Souza IM. Effective IT governance mechanisms in higher education institutions: An empirical study, 2020.
- Hassan NR, Lowry PB. Seeking middle-range theories in information systems research, in International Conference on Information Systems (ICIS 2015), Fort Worth, TX, December 2015, pp. 13–18.
- Brodie RJ, Saren M, Pels J. Theorizing about the service dominant logic: the bridging role of middle range theory. *Mark Theory.* 2011;11(1):75–91.
- Smith LM, Case JL, Smith HM, Harwell LC, Summers J. Relating ecosystem services to domains of human well-being: Foundation for a US index. *Ecol Ind.* 2013;28:79–90.
- Diener E, Suh EM, Lucas RE, Smith HL. Subjective well-being: three decades of progress. *Psychol Bull.* 1999;125(2):276.
- Wilson MG, Dejoy DM, Vandenberg RJ, Richardson HA, Mcgrath AL. Work characteristics and employee health and well-being: test of a model of healthy work organization. *J Occup Organizational Psychol.* 2004;77(4):565–88.
- Frey BS, Stutzer A. *Happiness and economics. Happiness and Economics.* Princeton University Press; 2010.

34. Rosenbaum MS. Transformative service research: focus on well-being. *Serv Ind J*, 35, no. 7–8, pp. 363–367, 2015/06/11 2015, <https://doi.org/10.1080/02642069.2015.1025061>.
35. Brügger EC, Hogreve J, Holmlund M, Kabadayi S, Löfgren M. Financial well-being: a conceptualization and research agenda. *J Bus Res*. 2017;79:228–37.
36. Feng K, Altınay L, Olya H. Social well-being and transformative service research: evidence from China. *J Serv Mark*, 2019.
37. Barile S, Lusch R, Reynoso J, Saviano M, Spohrer J. Systems, networks, and ecosystems in service research. *J Service Manage*. 2016;27(4):652–74. <https://doi.org/10.1108/josm-09-2015-0268>.
38. Vargo SL, Lusch RF. Institutions and axioms: an extension and update of service-dominant logic. *J Acad Mark Sci*. 2016;44(1):5–23.
39. Vargo SL. Service dominant logic: backward and forward, in *The SAGE Handbook of Service dominant logic* R. F. L. Stephen L. Vargo Ed.: SAGE 2019, p. 800.
40. Akaka MA, Vargo SL, Lusch RF. An exploration of networks in value cocreation: a service-ecosystems view, in special issue—toward a better understanding of the role of value in markets and marketing. Emerald Group Publishing Limited; 2012.
41. Mazzara D. Future of health & Wellbeing-Key trends and business opportunities, Accenture (April 10th). Trento, 2014.
42. Calow P. Can ecosystems be healthy? Critical consideration of concepts. *J Aquat Ecosyst Health*. 1992;1(1):1–5.
43. Vargo SL, Akaka MA, Vaughan CM. Conceptualizing value: a service-ecosystem view. *J Creating Value*. 2017;3(2):117–24. <https://doi.org/10.1177/2394964317732861>.
44. Akaka MA, Vargo SL, Schau HJ. The context of experience. *J Service Manage*. 2015;26(2):206–23. <https://doi.org/10.1108/josm-10-2014-0270>.
45. Bache I, Reardon L, Anand P. Wellbeing as a wicked problem: navigating the arguments for the role of government. *J Happiness Stud*. 2016;17(3):893–912.
46. Dam NAK, Dinh TL, Menvielle W. Customer Co-creation through the Lens of Service-dominant Logic: A Literature Review, in *AMCIS*, 2020.
47. Charmaz K. *Constructing grounded theory: a practical guide through qualitative analysis*. sage; 2006.
48. Gioia DA, Corley KG, Hamilton AL. Seeking qualitative rigor in inductive research: notes on the Gioia methodology. *Organizational Res Methods*. 2013;16(1):15–31.
49. Walsham G. Interpretive case studies in IS research: nature and method. *Eur J Inform Syst*. 1995;4(2):74–81.
50. Urquhart C, Fernández W. Using grounded theory method in information systems: The researcher as blank slate and other myths, in *Enacting Research Methods in Information Systems: Volume 1*: Springer, 2016, pp. 129–156.
51. Birks M, Mills J. *Grounded theory: a practical guide*. Sage; 2015.
52. Voss C, Perks H, Sousa R, Witell L, Wunderlich NV. Reflections on context in service research. *J Service Manage*. 2016;27(1):30–6.
53. G. university. *Strategic Plan 2020–2025* [Online] Available: https://www.griffith.edu.au/_data/assets/pdf_file/0037/932698/Strategic-Plan-2020-2025.pdf.
54. Eisenhardt KM. Building theories from case study research. *Acad Manage Rev*. 1989;14(4):532–50.
55. Carminati L. Generalizability in qualitative research: a tale of two traditions. *Qual Health Res*. 2018;28(13):2094–101.
56. Morgeson FP, Hofmann DA. The structure and function of collective constructs: implications for multilevel research and theory development. *Acad Manage Rev*. 1999;24(2):249–65.
57. Bansal P, Corley K. The coming of age for qualitative research: embracing the diversity of qualitative methods. Volume 54. ed: Academy of Management Briarcliff Manor, NY; 2011. pp. 233–7.

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