

Facilitating Coproduction in Public Services: Management Implications from a Systematic Literature Review

To be cited as:

Sicilia, M., Sancino, A., Nabatchi, T., Guarini, E. (forthcoming), Facilitating Coproduction in Public Services: Management Implications from a Systematic Literature Review, *Public Money & Management*.

Abstract

Drawing on the results of a systematic literature review of empirical studies, this paper sheds light on six broad factors that facilitate the initiation and implementation of coproduction in public services. The factors are classified into two overarching categories: (1) organizational factors, including organizational arrangements, professional roles, and managerial tools, and (2) procedural factors, including participant recruitment, participant preparation, and process design. For each set of factors, the paper provides a series of management implications. It concludes with additional observations for practice.

Keywords: Coproduction, Public Services, Systematic Literature Review

Facilitating Coproduction in Public Services: Management Implications from a Systematic Literature Review

Introduction

“Coproduction” is an umbrella concept that captures a wide variety of activities that can occur in any phase of the public service cycle and in which state actors (i.e., professionals mandated by and/or acting on behalf of the state) and lay actors (i.e., members of the public) work together to produce benefits (Nabatchi *et al.*, 2017, p. 769). Since it first emerged in the 1970s from the research activity of Elinor Ostrom and her colleagues at Indiana University, interest in the coproduction of public services has waxed and waned. Over the last decade, however, the concept has attracted renewed attention from both scholars and practitioners, generating a vibrant field of study and practice.

At its most basic level, scholars and practitioners see coproduction as a way to improve the commissioning, design, delivery, and assessment of public services. However, the renewed popularity of coproduction is often ascribed to multiple, sometimes overlapping, contemporary issues. For example, coproduction is seen as a tool for improving multi-sectoral governance, as a necessity in an era of austerity, as a remedy for the progressive decline of citizenship and a burgeoning democratic crisis, and as a means for improving public value creation, both instrumentally for government and citizens, and normatively for society (for more discussion, see Nabatchi *et al.*, 2017).

Despite increased attention, public sector officials have a limited understanding of co-production, which suggests not only the need for further research, but also for efforts to improve their knowledge and ability to use coproduction successfully (cf. Parrado *et al.*, 2013). This paper helps in that endeavor by drawing on the results of a systematic literature review of empirical studies to shed light on organizational and procedural factors that facilitate the coproduction of public services. In the following sections, we first explain our approach to the literature review and provide descriptive information about the publications analyzed. We then present three organizational factors (organizational arrangements, professional roles, managerial tools) and three procedural factors (participant recruitment, participant preparation, process design) that facilitate the initiation and implementation of coproduction. For each set of factors, we also provide a series of management implications. We conclude with some additional observations for practice.

A Systematic Literature Review

Our strategy for this systematic literature review (Tranfield *et al.*, 2003) involved several steps. First, in June 2017, we carried out an electronic search of the ISI Web of Knowledge and Scopus databases using the terms “coproduction” or “co-production” in the title, abstract, and/or keywords sections.¹ We restricted the search to papers that were written in English, published in peer-reviewed journals, and in the subject areas of management, business, public administration, economics, or sociology. We identified a total of 1509 articles, including 785 in Scopus and 724 in ISI Web of Science. Of these, 323 articles were duplicates and eliminated from the sample. We also browsed all issues of eight public administration journals² and identified three additional articles. Second, we skimmed the 1189 identified articles to determine whether they should be included in the

¹ We also searched for co-commissioning, co-delivery, co-design, co-assessment, co-evaluation, and their variations, but these terms did not expand our results.

² The eight journals are *International Journal of Public Administration*, *International Public Management Journal*, *International Review of Administrative Sciences*, *Journal of Public Administration Research and Theory*, *Public Administration*, *Public Administration Review*, *Public Management Review*, and *Public Money and Management*.

analysis. We only included articles that were: (i) focused on the coproduction of public services (articles about coproduction in other areas and/or in other contexts were excluded); (ii) empirical in their approach (conceptual and theoretical articles were excluded); and (iii) provided information about factors that facilitated the use of coproduction. This process reduced our sample to 53 articles.

Finally, we split into two teams, each of which coded a set of articles. We discussed our work on a regular basis to resolve questions and address divergent coding. In addition to citation information (e.g., year of publication, journal, authors), we coded each article for: article type (qualitative or quantitative), method of analysis (e.g., experiment, survey, single or multiple case study, etc.), country of study, public service area, level of coproduction (individual, group, collective), and phase of public service cycle (commissioning, design, delivery, assessment). We used notes fields to add additional relevant information.

Before presenting the findings, it is useful to provide basic information about the 53 empirical articles in the analysis. The publication dates ranged from 1983 to 2017, with just over 62% of all articles published between 2015 and 2017. There was an almost equal distribution between qualitative studies (most used a single case study approach) and quantitative studies (most used surveys).

The majority of articles (27) focused on single European countries, including seven on the Netherlands, five on Finland, four on the United Kingdom, four on Denmark, three on Italy, two on Belgium, and one each on Austria and Estonia. Five studies presented the results of cross-country comparisons in Europe. The remaining studies focused on nations around the world, with ten on the United States, three on Brazil, and one each on Ethiopia, Guinea, Hong Kong, Japan, Pakistan, Sierra Leone, Singapore, and Thailand.

The studies focused on a wide range of service areas, with several examining more than one area. For example, twelve addressed healthcare, eleven centered on education, and ten focused on social care (e.g., family or disability services). Others addressed issues such as public safety, neighborhood improvement, public works, or trash and rubbish collection.

Most articles did not specify the level (individual, group, collective) or phase (commissioning, design, delivery, assessment) of the coproduction activity under investigation, but we inferred this information when possible. For purposes of simplicity, we coded articles as focusing on either individual or collective coproduction. Ten articles addressed both individual and collective coproduction, with the remainder almost equally split in their foci. Thirty-nine articles focused on the delivery phase of the service cycle, with seven of these addressing additional phases. In the following sections, we present our findings from the literature review.

Facilitating Coproduction

In our review of the literature, we searched for empirical evidence about factors that facilitate the initiation and implementation of coproduction. We generally excluded from our analysis factors that are beyond the control of public organizations and public managers, such as demographic factors (e.g., age, gender, education, employment status), community characteristics (e.g., urban, non-urban), and social factors (e.g., social capital, political commitment). However, we included factors related to lay actors' personal dispositions, as these seem to be particularly relevant to various process-related aspects of coproduction.

Through our review, we identified six broad factors that facilitate coproduction. We classify these factors into two overarching categories: (1) organizational factors, including organizational arrangements, professional roles, and managerial tools, and (2) procedural factors, including

participant recruitment, participant preparation, and process design. Table 1 lists and describes the organizational and procedural factors that facilitate coproduction in public services.

It is important to note that neither the factors nor the categories are mutually exclusive – there is overlap among the factors within the categories, and between the categories themselves. Moreover, the empirical literature on these issues is still developing, which means that we cannot yet weight the factors or determine causal mechanisms, and that other factors that facilitate coproduction (but have yet to be examined empirically) are likely to exist. We discuss the factors in both categories, and the concomitant management implications, in the following sections.

Table 1: Organizational and Procedural Factors that Facilitate Coproduction

Categories	Factors	Description
Organizational Factors	Organizational Arrangements	Creating new organizational structures, such as offices and positions, and fostering boundary spanning across different organizations
	Professional Roles	Providing continuous leadership and promoting regular opportunities for learning and skill development among professionals
	Managerial Tools	Using tools to help professionals understand coproduction and enhance its potential
Procedural Factors	Participant Recruitment	Using active enrollment and communication strategies to reduce selection bias among participating lay actors
	Participant Preparation	Providing knowledge, information, and other resources to help lay actors coproduce more effectively
	Process Design	Designing coproduction processes to maximize the likelihood of positive outcomes

Organizational Factors

Almost all of the empirical studies on coproduction note the importance of organizational factors for initiating and sustaining coproduction. We identified three factors that seem to be particularly significant: organizational arrangements, professional roles, and managerial tools.

Organizational Arrangements. Several studies highlight the importance of creating new structures within the organization to take responsibility for coproduction. New offices and positions can help create conditions that facilitate coproduction, such as increased accessibility, adaptability, and the improvement of coordination and shared decision making mechanisms (Farooqi, 2016; Farr, 2016; Sicilia *et al.*, 2016; Tu, 2016; Workman, 2011). While the research is modest, some evidence suggests that the independence and agility of these offices may be important. For example, a study of coproduction in education finds that autonomy (e.g., control over issues such as curriculum, personnel, and budget) can positively impact both individual and collective coproduction (Bifulco and Ladd, 2006). Similarly, a study of coproduction with ex-prisoners in Estonia suggests that more flexibility (and less formalization) can encourage experimentation and diffusion of best practices (Surva *et al.*, 2016).

Research also suggests the need to have arrangements that foster boundary spanning across multiple

organizations to avoid siloed approaches to coproduction and to increase the involvement of lay-actors (Radnor *et al.*, 2014; Poocharoen and Ting, 2015). For example, a study of participation in childcare services in eight European countries identifies the existence of a ‘glass ceiling’ for participation in public sector services and finds that the presence of voluntary organizations may help breach this barrier (Pestoff, 2006).

Professional Roles. Professionals (i.e., the “regular” producers of services) play important roles in coproduction. At higher organizational levels, professionals set the direction for coproduction efforts (Farmer *et al.*, 2015), and at the front lines, professionals engage with lay actors and share responsibility for services (Bovaird, 2007). At all levels, professionals need to provide continuous leadership for coproduction efforts to help improve organizational culture and systems, empower staff to adapt to the particular needs of the local context, and ultimately, generate improvements in services and service delivery (Farmer *et al.*, 2015). However, some studies find that professionals may struggle to abandon their traditional *modus operandi* and to embrace the new practices and roles required in coproduction (Tuurnas *et al.* 2016; Rantamäki, 2017). To overcome this issue, scholars suggest encouraging a process of learning, in which professional and experiential knowledge are shared through frequent interactions among personnel involved in coproduction (Tuurnas, 2015, 2016). Similarly, others highlight the importance of learning through the development of specific skills, such as active listening (Sicilia *et al.*, 2016) and leadership and facilitation (Tuurnas, 2016), which can help professionals gain knowledge about resources, catalyze energies, and strengthen accountability relationships.

Managerial Tools. The past several years have seen a growing focus on the use of managerial tools in coproduction. Our review suggests that such tools can be important facilitators of coproduction, particularly in helping professionals to see and understand its potential. For example, one study finds that service blueprinting can be used “both as a conceptual tool through which to understand the coproduction of public services and as a practice tool through which to map and enhance coproduction in the provision of public services” (Radnor *et al.*, 2014, p. 403). As a managerial tool in coproduction, service blueprinting provides a map of the service delivery process that “highlights the role(s) and relationship(s) of the service user within the service delivery system” (Radnor *et al.*, 2014, p. 404). In turn, this can help professionals (and lay actors) understand that coproduction is more than just “an add on” to traditional service provision (cf. Osborne and Strokosch, 2013), and can encourage their participation in efforts to improve services and service delivery.

Together, these studies of organizational factors suggest several implications for public management:

1. Public managers should develop organizational arrangements that support the use of coproduction, for example by creating offices and positions that improve access, encourage flexibility, and increase coordination and shared decision making.
2. Public managers should consider organizational options that promote boundary spanning and the engagement of others, including for example, working with additional public sector agencies, civil society organizations, and community volunteers.
3. Public managers should create regular opportunities for professionals engaged in coproduction to learn from one another and develop relevant skills and knowledge, such as active listening, leadership, and facilitation.
4. Public managers should consider developing and using tools that help professionals (and lay actors) understand their roles in, and importance of, coproduction across the public service cycle.

Procedural Factors

Numerous empirical studies shed light on procedural factors that facilitate coproduction. We identified three factors from the empirical literature as being particularly important: participant recruitment, preparation of lay actors, and process design.

Participant Recruitment

Getting people to participate in coproduction is a challenging task made even more complicated by the issue of selection bias (i.e., those who participate are less likely to represent the full range of service users or the community more broadly) (cf. Jakobsen and Andersen, 2013). Research points to at least two sources of selection bias. First, studies indicate that the personal dispositions of lay actors shape their willingness to participate and can generate selection bias. For example, a study in the context of Finnish social and healthcare services finds that despite legislation and official policies supporting coproduction, citizen attitudes, prejudices, and doubts influenced their willingness to participate (Rantamäki, 2017). Likewise, other studies find that lay actors with lower trust and lower motivation (Fledderus and Honingh, 2016), as well as those with lower perceptions of efficacy – the feeling that their actions can impact results (Bifulco and Ladd, 2006; Bovaird *et al.*, 2015; Bovaird *et al.*, 2016; Parrado *et al.*, 2013; Thomsen, 2017) – are less likely to participate.

Second, some emerging research suggests that broader social inequities can also generate selection bias. For example, the digital divide affected participation in coproduction in a municipal call service in Boston (Clark *et al.*, 2013). Similarly, socio-political disparities in access to electricity and other services limited participation in a recycling program in the favelas of Rio de Janeiro (Pilò, 2017). Social inequities also may matter at the neighborhood level. For example, one study finds that the spatial morphology (i.e., neighborhood characteristics) affects rates of participation in coproduction (Thijssen and Van Dooren, 2016).

Although civic dispositions and socio-political disparities are largely beyond the immediate control of public organizations and managers, several studies shed light on strategies that may mitigate these factors, help with participant recruitment, and reduce selection bias. At the heart of these strategies is the idea that participation in coproduction can be facilitated to the extent that managers shift from a “public-as-citizen” model, which “treats participation as a function of a general civic disposition,” to a “public-as-partner” model, which recognizes “the diverse array of human motivations” that encourage participation (O’Brien *et al.*, 2017, p. 320). Thus, each of these strategies relies on more active forms of participant recruitment.

First, research suggests that selection bias is aggravated when participation is left to self-selection, that is, when individuals decide for themselves whether to participate (Jakobsen and Andersen, 2013). Thus, direct outreach efforts by government to involve lay actors in coproduction programs increases participation (Folz, 1991; Jakobsen, 2013). To this end, ICT and social media platforms may be useful recruitment tools because they “lower the costs for reaching specific target groups and render the ‘long tail’ [i.e., the “high hanging fruit” of additional citizens and additional information] accessible” (Meijer, 2014, p. 26; see also Clark *et al.*, 2013; Meijer, 2011, 2012).

Second, given the importance of language in coproduction (e.g., Ben-Ari 1990), some research examines how framing and the presentation of the “action situation” (Ostrom, 2010) affect recruitment. For example, several studies indicate that lay actors are more willing to coproduce when they are aware of shortfalls in public service performance (Bovaird *et al.*, 2015; Bovaird *et al.*, 2016; Parrado *et al.*, 2013), and when they perceive that it will be easy for them to get (and stay) involved

(Vanleene *et al.*, 2017). Similarly, lay actors appear to be more willingly to coproduce when they perceive that public service provision (or the lack thereof) generates a real or imminent personal problem for them, as is the case, for example, with regard to public health issues (Chaebo and Medeiros, 2017). Thus, recruitment efforts may be bolstered by messaging and cues to prospective participants about the social benefits of coproduction, potential improvements in government service performance, and the ease of involvement (cf. O'Brien *et al.*, 2017). This idea is supported by several Q studies showing that there are several types of co-producers, all of whom are driven more by community-centered (i.e., pro-social and mission-driven outcomes) than by self-centered motivations (Barbera *et al.*, 2016; van Eijk *et al.*, 2017; van Eijk and Steen, 2014, 2016).

Finally, two studies examine extent to which the demographic profiles of the professionals affect the willingness of lay actors to coproduce. For example, using a survey experiment, one study finds that women are more willing to coproduce in recycling initiatives when the involved government professionals are also women (Ricucci *et al.*, 2016). However, a replication study in the context of emergency preparedness finds no such effect (Van Ryzin *et al.*, 2017). The authors suggest that matching the demographic profiles of professionals and lay actors may be more important to recruitment when: (a) lay actor inputs are requested from local (as opposed to state or federal) governments; (b) the tasks to be performed require low effort and commitment; and (c) the services to be coproduced are salient to most citizens (Van Ryzin *et al.*, 2017).

Participant Preparation

Once participants have been recruited, they may need help preparing to coproduce. A handful of studies (mostly conducted in educational settings) suggest that public managers can lift the constraints on lay actors' ability to coproduce and help them be more effective in the coproduction process by providing them with relevant information and basic resources. For example, Thomsen (2017) finds that information about *how* to coproduce may increase participation, although the results are strongly associated with lay actors' perceptions of self-efficacy. Similarly, Jakobsen and Serritzlew (2016) find that sending information can increase parents' knowledge about how to help their children learn to read; however, Thomsen and Jakobsen (2015, p. 299) argue that "knowledge provided by information strategies has to be part of an on-going interaction between citizens and public employees in order to translate into changes in citizen coproduction." Other studies indicate that the provision of information and basic resources (for example children's books or free bins for recycling) most benefits those with the greatest need (Folz, 1991; Jakobsen, 2013; Jakobsen and Andersen, 2013). Finally, studies find that lay actors' time constraints (which were not associated with socio-economic status) translate into coproduction constraints (Jakobsen, 2013; Vanleene *et al.*, 2017). However, ICT and social media platforms, which enable interactions anywhere and anytime, may mitigate these constraints, increase the involvement of additional lay actors, and create opportunities for "ubiquitous coproduction" in virtual networks (Clark *et al.*, 2013; Meijer, 2011, 2012, 2014).

Process Design

Surprisingly few empirical studies discuss the design of the coproduction process under investigation in any depth. This is unfortunate, as elements of process design are likely to influence the outcomes of coproduction (Fledderus, 2015; Jo and Nabatchi, 2016). Nevertheless, some empirical studies reveal various process elements that may facilitate or hinder coproduction outcomes.

First, participant experiences during coproduction seem to matter for its outcomes. For example, one study finds that empowerment is both an input and outcome of coproduction, and that a focus on individual, interpersonal, and political empowerment during the process can stimulate improved perceptions of empowerment after the process (Sudhipongpracha and Wongpredee, 2016). However,

it also appears that participant perceptions are shaped by the nature of their interactions with one another during the process. For example, one study finds that the overall level of trust among participants was shaped by the attitudes of the less motivated participants, that is, the less motivated participants negatively affected the attitudes of the more motivated participants, particularly when the leaders of the coproduction process focused on the former group (Fledderus, 2015). A second study finds that divergent values and the inappropriate behavior of lay actors (e.g., injection of racial assumptions into the process or inequitable power relations), whether accidental or intentional, impacted the effectiveness of cooperative efforts (Williams *et al.*, 2016). Moreover, research suggests that these poor outcomes can lead to less overall satisfaction with coproduction, but that such outcomes can be mitigated by establishing a close relationship with lay actors during coproduction (Fledderus, 2015).

Second, the iteration or frequency of coproduction also seems to affect outcomes. For example, one study of coproduction for school meal services in Italy finds that the regular on-going nature of the process increased trust among school officials, parents, and civil society actors, and promoted innovation and sustainability (Galli *et al.*, 2014). The use of ICT and social media platforms may help to regularize and institutionalize coproduction, by shifting service delivery from a rational to a more social approach that emphasizes interactions, fosters a sense of shared identity and community, and provides additional channels for public service and social support structures, as well as access to citizen experiences (Meijer, 2012).

Finally, the timing of the coproduction process seems to matter for outcomes, though the evidence is far from conclusive. Several studies suggest that use of coproduction across the phases of the public service cycle (commissioning, design, delivery, assessment) enhances the credibility of both the organization and its initiatives (Cepiku and Giordano, 2014; Folz, 1991; Sicilia *et al.*, 2016). However, one study suggests that service performance improves when coproduction takes place at the planning and design stage of the service cycle, as opposed to being limited to the delivery phase (Nance and Ortolano, 2007), while another suggests that coproduction in the design and assessment phases can lead to unexpected project challenges and risks for government, as well as greater political costs (i.e., opposition and blame), during the delivery of public services (Bartenberger and Sześciło, 2016).

Together, these findings about procedural factors suggest several management implications:

1. Public managers should understand that recruitment based on self-selection is likely to generate selection bias. Therefore, they should appeal to the multiple motivations that might induce the participation of lay actors and take active steps to recruit participants.
2. Public managers need to be thoughtful about how they frame and message around coproduction, as this is likely to impact participant recruitment. Messaging may improve recruitment efforts when it emphasizes: (a) the potential for pro-social outcomes, (b) gaps in public service performance, and (c) the ease of involvement.
3. Public managers should provide lay actors with information about and resources for coproduction through a regularized process of interactive relationship-building rather than through one-off initiatives. They should be particularly mindful about the types of resources and information that will be most useful and beneficial to those in greatest need of the service, and must also appreciate lay actors' time constraints.
4. During coproduction, public managers should work to improve the participation of lay actors by using active forms of engagement, addressing negative stimuli, such as poor attitudes and inappropriate behavior, and fostering on-going and close relationships with lay actors.

5. Public managers should consider using recurring engagements, as well as ICT and social media platforms, to help regularize and institutionalize coproduction. They should also consider the timing of the coproduction activity, as well as its potential risks and political costs.

Conclusion

There can be little doubt that scholars and practitioners are increasingly interested in coproduction. A systematic search of academic journals revealed over 1,100 articles published since the term first emerged in the late 1970s, with nearly two-thirds published since 2015. However, a narrowing of those articles also revealed that empirical research on coproduction in public services is lagging behind conceptual, theoretical, and descriptive research. We found only 53 articles that contained empirical results informing public managers' use of coproduction. Based on a review of those articles, we identified three organizational factors (organizational arrangements, professional roles, and managerial tools) and three procedural factors (participant recruitment, participant preparation, and process design) that facilitate the initiation and implementation of coproduction. Based on the empirical findings, we also offered several concomitant management implications. Rather than summarize the factors and implications, we conclude with some brief observations for practice.

While much of the research is still nascent, existing studies can (and do) inform the practice of coproduction. We found empirical support for the three organizational and three procedural factors (and the associated management implications) identified in this study. However, it is important to note that the overarching categories and individual factors are not separate – they are interdependent. For example, within the organizational factors, organizational arrangements and professional roles are likely to impact one another, and within the procedural factors, participant recruitment and preparation might be considered part of process design. Similarly, the three organizational factors are likely to impact the three procedural factors, and managers' experiences with the procedural factors could conceivably shape the organizational factors. Other connections among the factors and categories certainly could be identified, but doing so would obscure our two final points.

First, while the factors and implications articulated in this article will be useful to public managers' coproduction efforts, they may not guarantee success, as we still have a lot to learn about how and why coproduction works (and does not). More research is needed to better delineate these factors and understand their deployment in practice, that is, how the factors are used and how they relate to specific public service areas and issues, as well as to broader issues in public sector transformation. Likewise, more attention needs to be given to other factors that may affect coproduction, as well as to the causal mechanisms behind the factors. To assist such efforts, scholars might consider using the factors and implications identified in this article as the foundation for the development of propositions and testing of hypotheses.

Second, and perhaps more importantly, context matters. The “one-size-fits-all” mantra does not apply to coproduction as a whole, or to any of its factors. Accordingly, public managers must recognize that a single approach to coproduction is highly unlikely to work in all circumstances. They will need to use their knowledge, skills, and best judgment to design, activate, and implement coproduction activities that are most likely to be suited to their particular context, issues, and goals. Likewise, scholars need to be far more attentive to empirically examining coproduction in ways that will better inform the activities of public managers. There is little doubt that we have much to learn about facilitating coproduction. Still, even as the evidence base continues to grow, it is likely that coproduction will remain as much an art, as a science.

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