

THE UNIVERSITY OF HULL

**Holistic Flexibility: conceptual support for Critical Systems Thinking to aid
flexible and responsible consultancy practice**

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by

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1. Summary and contribution to knowledge

1.1. Introduction

This chapter provides an overview of this exegesis submitted for a PhD through Published Works. It will touch upon the inspiration behind this research, the propositional themes around which the arguments are structured, and the publications considered.

1.2. Distinctive contribution to Critical Systems Thinking (CST)

In 2019, my book, *Systems Thinking for Management Consultants: Introducing Holistic Flexibility* (Chowdhury, 2019a), was published by Springer. While writing the book, I revisited seven research papers and book chapters that I had earlier authored, solely or in collaboration, in light of developments that had occurred since they were first written and my own evolved perspective. This process of revisiting and reflection culminated in the proposal of what I call Holistic Flexibility, a conceptual support for systems consultants to approach complex situations. In this document I have brought together selected chapters from my book and a more recent publication that, taken together, weave a consistent story that highlights how a distinctive body of work has been created that has made a significant contribution to knowledge in CST.

I would like to offer an explanation of my choice of the use of the terms ‘holistic’ and ‘holism’ in this research. Bunge (2000) talks about individualism and holism as two extremes in methodological approaches. Whereas the former focuses purely on individual agency and underrates interrelationships, the latter focuses on the emergent character of the totality itself and underrates individual agency. Bunge (2000) argues that individualism and holism alone are inadequate to understand social/organisational realities and what is required is ‘systemism’ that can synthesise both the individual (micro) and the whole (macro). Bunge presented systemism as “the only cogent and viable alternative” (Viterale, 2019:6). Having considered this, I have crafted ‘holism’ in my research to highlight three main elements – boundaries, interrelationships, and emergence (see section-3.7) – considering both individual agency and the collective. I have used

the terms ‘holistic’ and ‘systemic’ interchangeably and have articulated the conceptual support as Holistic Flexibility because being a practitioner-oriented book, the term ‘holistic’ is better recognised and used more widely in industry than Bunge’s term ‘systemism’.

Three propositional themes can be discerned from my published works on Holistic Flexibility:

1. **CST and flexibility:** Flexibility is an inherent characteristic of a consultant’s thinking and practice when employing CST as this is essentially based on being critical and responsive in a variety of ways (see section-2.4.1).
2. **CST and responsible practice:** CST can lead the consultant to demonstrate responsibility in problem structuring, stakeholder participation, and in working towards meaningful solutions (see section-2.4.2).
3. **CST as a state of mind:** CST does not necessarily mean the application of methodologies that have been traditionally associated with systems thinking. It is rather a conceptual support, an idea, that influences practice in an iterative and fluid manner, rather than methodical and sequential application of methodologies. In other words, CST as a state of mind (see section-2.4.3).

Table-1.1 (next page) presents a mapping of thirteen published works with their respective propositional themes (shaded in the table). Parts of several of these chapters had previously appeared as journal papers or chapters in other edited books.

Publications considered		Parts of this chapter have previously appeared as a...	Propositional Theme		
			Flexibility	Responsible Practice	State of mind
1	Strategic Convergence: Overcoming Differences in a Professional Setup (Chowdhury, 2019b)	Chapter in an edited book in 2008			
2	Organisational Collaboration in a Professional Services Firm (Chowdhury, 2019c)	Journal Paper in 2011			
3	Micro-insurance and community engagement (Chowdhury, 2019d)	Journal paper in 2018			
4	Healthcare knowledge management and problem structuring (Chowdhury, 2019e)	Chapter in an edited book in 2007			
5	From Barriers to Boundaries: Learnings from a Healthcare IT Project Failure (Chowdhury, 2019f)	Journal Paper in 2007			
6	Building Systemic Capability in An NGO Setting (Chowdhury, 2019h)	Journal Paper in 2015			
7	Sustainable Urbanisation and Community Engagement (Chowdhury, 2019i)	N/A			
8	Electronic Public Health and e-Governance (Chowdhury, 2019j)	Chapter in an edited book in 2010			
9	Corporate Reputation (Chowdhury, 2019k)	N/A			
10	From Restructuring to Optimisation: Enabling a Sales and Marketing Function (Chowdhury, 2019l)	N/A			
11	Organisational Development (Chowdhury, 2019m)	N/A			
12	Holistic Flexibility (Chowdhury, 2019g)	N/A			
13	An Appreciation of Metaphors in Management Consulting from the Conceptual Lens of Holistic Flexibility (Chowdhury, 2020)	N/A			

Table-1.1: Mapping of published works with respective contributions

The propositional themes will be picked up in Chapter 2 when we discuss gaps in extant literature.

1.3. How the remaining document is organised

The remaining of this document is organised as follows.

Chapter 2 provides a summary literature review of the key topics under discussion. The narrative will highlight relevant gaps in the extant literature and associated research questions which will be highlighted that provide the basis of my claim to having made a contribution to knowledge.

Chapter 3 presents the publications that I have selected to include in this submission. Each contribution will be considered in detail and the discussions will highlight how select publications address the research questions.

Chapter 4 summarises how my research answered the research questions and filled the identified gaps in extant knowledge (see Chapter 2) thereby making a higher-level contribution in CST. Impact of the research in academia and practice will be highlighted and current and future research opportunities will be outlined. Finally, the conclusions of the submission will be provided.

1.4. Conclusion

This chapter provided an introduction to my research, an overview of how this document is organised, and sets the tone for the rest of the discussion in the exegesis. The next chapter will present the gaps in extant literature and the research questions.

2. Background and research questions

2.1. Introduction

In this chapter, a critical review of relevant literature will be undertaken. I will start with a summary overview of CST and systems consultancy before narrowing-in on three propositional themes. Gaps in the literature will be highlighted that will inform the proposal of a set of research questions.

2.2. Critical Systems Thinking (CST)

Systems thinking is an integrative discipline that considers interrelationships, interactions and emergent behaviours. It is the network and interaction between the parts (subsystems) that give rise to the system as-a-whole (von Bertalanffy, 1950). Systems and their environments exist in an integrated manner influencing each other in ubiquitous open systems (Dutta, 2017; Hariharan, et. al., 2021). Murthy (2000) notes, “the concept of a system is fundamental to many sciences” (p. 87).

There are three distinct periods or, as Midgley (2000, 2003), followed by Cabrera and Cabrera (2019), suggests, waves in the history of systems thinking. The evolution of systems thinking through its three waves is described below.

The first wave of systems thinking was characterised by the realisation of the importance of interconnectedness of social/organisational systems in-order-to manage complex problems in the post-World War-II scenario. This wave was influenced by developments based on the belief that social reality can be optimised and managed with a functionalist mindset (LeLeur, 2014; Mooney, et al., 2007); this saw the rise of hard systems thinking. Midgley and Rajagopalan (in press) refer to this wave as the “applied-scientific methodological tradition” reflected in approaches such as systems analysis (e.g. Miser & Quade, 1988; Optner, 1973; Quade & Boucher, 1968; Quade, et al., 1978), Systems Engineering (e.g. Hall, 1962; Jenkins, 1969), System Dynamics (e.g. Forrester, 1961), and Organisational Cybernetics and Viable System Model (e.g. Beer, 1959, 1966, 1981). The first wave gained popularity during the 1950s and 1960s (Midgley & Rajagopalan, in print)

but it soon faced criticism for its emphasis on prediction and control with systems thinkers positioned as experts (Rosenhead, 1989) and neglect of human agency (Checkland, 1981; Jackson, 2000; Lleras, 1995). This wave failed to consider complexity, subjectivity, and power that form social/organisational reality (Burton, 2003; Flood & Romm, 1995; Schechter, 1991).

Criticism of the first wave led to a “significant paradigm shift in the theory underpinning the application of systems thinking” (Midgley & Rajagopalan, in press) and the rise of the second wave through the works of scholars such as Ackoff (1981), Checkland (1981), Checkland and Scholes (1999) and Churchman (1979). These scholars emphasised interpersonal relationships, intersubjectivity, learning, and a spirit of open dialogue and accommodation and created what came to be known as soft systems thinking. Churchman raised fundamental questions on the nature of defining a system arguing that the boundaries of a system are conceptual value-based constructs that define who, as a stakeholder, is included and who is excluded. Such arguments provided the basis for recognition of participatory approaches and collaborative action reflected in methodologies such as Strategic Assumption Surfacing and Testing (Mason & Mitroff, 1981), Soft Systems Methodology (Checkland, 1981; Checkland & Poulter, 2006; Checkland & Scholes, 1990), Interactive Planning (Ackoff, 1981; Ackoff, et. al., 2006), Interactive Management (Warfield, 1994; Warfield & Cárdenas, 2002) and Structured Dialogical Design (Christakis & Bausch, 2006; Laouris & Michaelides, 2018). Such methodologies defined processes of intervention for ill-structured problems.

Although the second wave sought to address the shortcomings of the first wave, it soon faced criticism from scholars for its inability to address issues of power and hidden dynamics, most popularly articulated by Jackson (1982). Rajagopalan (2020) notes that soft systems thinking neglects the multiple influences of social-structural factors and their effects. Clarke and Lehaney (1999), Mingers (1984, 1992) and Oliga (1988) talked about power-based ideological frames that create false consciousness amongst stakeholders that the soft systems tradition fails to address. During the same time, following works of Fuenmayor (1988) and López-Garay (1986), the concept of interpretive systemology was introduced in the literature as “a theory of organizations embedded in the social theory, and a theory of design (also based on the general ontoepistemology) focused on the subject of human activity systems design” (Fuenmayor & López-Garay, 1991:13). Interpretive systemology argued for a critical emancipatory nature for interventions that would

seek to uncover the constitution of power shaped by the “combined and mutually reinforcing interaction of instrumental reason and economic growth” (Fuenmayor & López-Garay, 1991:16).

Criticisms of the second wave and an attempt to bridge the growing fragmentation (Dando & Bennett, 1981) between hard and soft systems thinking gave rise to the third wave in systems thinking that had a focus on liberation and emancipation (Burton, 2003) and employed recent developments from complexity theory (LeLour, 2014). The importance of human interaction and interrelationships (Ellis, 1995) were paramount and creation of a shared vision was emphasised (Thackara, 2005). This wave came to be known as Critical Systems Thinking (CST). Ulrich and Reynolds (2010) talked of boundary critique as a “process of unfolding and questioning boundary judgements” (p. 243) that is central to understanding problem situations; further, Ulrich (2012a) referred to the framework of system, facts and values as the “eternal triangle” in CST.

CST had two foundational theories: critical systems heuristics (CSH) (Ulrich, 1983, 1987, 1988, 1994, 1996) and methodological pluralism (Jackson & Keys, 1984). CSH synthesised Habermas’ (1972) theory of communicative action with the underlying argument that dialogue is central to rational planning, and Churchman’s (1979) theory that boundaries are value-based constructs. Ulrich developed twelve boundary questions in CSH for systems interventions based on the sources of motivation, control, knowledge and legitimacy of the involved and affected stakeholders. Methodological Pluralism, on the other hand, was developed in the works of Flood and Jackson (1991a,b), Jackson (1987a,b, 1990, 1991a, 2019), and Jackson and Keys (1984), predominantly in the form of a framework called the System of Systems Methodologies (SOSM) that aligns an array of systems methodologies in two axes: nature of the system and the relationship between participants. Jackson (1991a) argued that no one methodological approach to problem-solving can be considered complete and that they are all useful depending on the circumstances; he further brought to the fore the importance of complementarist approaches.

The initial form of CST with its two separate strands of CSH and Methodological Pluralism soon faced criticism owing to three primary problems (Midgley & Rajagopalan, in press). First, by Flood and Jackson’s (1991a) categorisation of CSH to one specific cell in the SOSM confined boundary critique to a minority situation apart from raising the fundamental question of how coercion gets identified (Midgley, 1996; Ulrich, 1990, 1993). Second, the concern that the SOSM

compels the practitioner to accept only one form of interpretation of the methodology (Gregory, 1992, 1996a,b) by slotting it into a fixed cell thereby dismissing possibilities of mix-and-match and of going beyond what the methodologies were originally designed for (Flood & Romm, 1995). Third, the criticism that CSH is not capable to deal with situations that display serious coercion because those who yield authority normally sway discussions in a particular way (Midgley, 1997a). Considering these criticisms, Midgley (2000) proposed Systemic Intervention (SI) as the alternative defined as “purposeful action by an agent to create change in relation to reflection upon boundaries” (p. 8). SI was founded upon a new approach to systems philosophy that considers dealing with coercion not so much based on employing methods, but on engagement with boundaries. It allows for mix-and-match between methodologies and extending the purpose of methodologies beyond their initial objectives to enable accommodation between stakeholders and dissolve (Ackoff, 1981) conflict. SI in this way brought about an integration between the two strands.

Having discussed the origins and development of CST, its relevance in the context of systems consultancy will now be considered

2.3. CST and systems consultancy

Consultancy is understood as the practice of an external advisor providing professional advice to a client (Leaman, 2013; Shays, 1988; Smith et al., 2003; Turner, 1982). Dash (1994a) argues that consulting is intimately linked with the wellbeing of human systems as it is a process through which human collectives engage in purposeful activities. However, consultants need to work under limitations posed by their clients in terms of time, resources, and expectations (Allen & Davis, 1993; De George, 1986). At the same time, consultants have internal pressures (including that from their employers, if applicable) ranging from optimised resource utilisation, usage of proprietary knowledge and the nature of relationship that they can develop with the client (Poulfelt, 1997). Finally, the client-consultant relationship can be seen as cold, impersonal, and also, intimidating (Bader & Stich, 1993; Kipping & Ambruster, 2002; Nosseir, 2016; Ulrich, 2012a).

Schein (2016) argues for the importance of humility, curiosity, self-awareness, and openness for consultants. Based on social identity theory, Gregory et al. (2020) highlight the fact that

researchers and funders are stakeholders too and may be surrounded by their extended stakeholder cohorts with their own respective interests. Checkland and Scholes' (1990) model of CATWOE – Customers, Actors, Transformation process, Worldview, Owners and Environmental constraints – encourages consideration of the range of actors in a systems-change process that include those designing and catalysing the change. A lot in the intervention and the intended outcomes can therefore depend on if the consultant is expected to play the role of an expert advisor/investigator or that of a facilitator who drives a participatory/empowering process (Ormerod, 2014).

Murthy (2000) talks about the operating environment of a consultant as a highly complex one existing as a “consultancy triad” between the client, the consultant, and the problem, where the consultant needs to work towards emancipation through learning (p. 94). Consultants need to be creative in how they approach a situation, overcome problems, collate, and interpret data, and in the way they understand the internal and external contexts with criticality and maturity (Bell & Morse, 2013; Ormerod, 2014). For consultants to demonstrate such competencies, they need to challenge the conventional, and be creative in borrowing and adapting approaches from a variety of fields beyond business and management. In the similar vein, Acevedo (2019) talks about the importance of creative methods in catalyzing lateral thinking and enabling learning and change. Ormerod (2014) presents a comparative summary of systems methodologies considered from a set of relevant dimensions – core idea, basic aim, critical focus, basic approach, methodological core principle, main critical devise, and implementation. The methodologies highlighted are Critical Rationalism for Practice (CRP) (Ormerod, 2014), Critical Systems Heuristics (CSH) and Total Systems Intervention/Creative Holism (TSI/CH), (Jackson, 2003; Ulrich, 2012b), Systemic Intervention (SI) (Midgley, 2000), and Multimethodology (MM) (Mingers & Brocklesby, 1997; Mingers & Gill, 1997). The various methodologies/approaches presented by Ormerod (2014) have certain distinctions that drive thinking and direct an intervention in a pluralist and complementarist manner. Different ways of combining methodologies have been proposed in various other works (Bennett, 1985; Checkland & Scholes, 1990; Eden, 1994; Flood, 1995; Hocking & Lee, 1994; Holt, 1994; Jackson, 1989, 1990; Keys, 1988; Lehaney & Paul, 1994; Mingers & Taylor, 1992; Ormerod, 1995; Savage & Mingers, 1996; Sushil, 1994, 1997; Taket, 1993). There are also challenges associated with being able to operate across paradigms such as those highlighted by Mingers and Brocklesby (1997).

All complementarist methodologies implicitly assume the presence of flexibility as a quality. Scholars such as Dash (1994b), Flood (1989, 1990), Jackson (1987a, 2000), Midgley (1990, 1997b) and Mingers and Brocklesby (1997) have talked about the importance of flexibility. Taking a dedicated approach to flexibility, Sushil (1994, 1997) considers the study of flexible systems management. But none of the works so far have studied the nature of how different kinds of flexibility may be required for systems consultants to carry out their work effectively. For consultants to truly deliver on the CST mandate (see section-2.2), they need to bring together flexibility of thought, methodologies, and resources. Extant literature does not talk about how consultants can work with these different dimensions of flexibility while remaining committed to outcomes within the realities that a situation presents.

Ormerod (2014) highlights how different methodologies involve critiquing one's own assumptions and choices, creativity in intervention design, stakeholder engagement, and iterative learning. However, there is no direct indication of what a consultant needs to be responsible for. The discussion has an intellectual bent without going so far as articulating principles for consultants on what can make outcomes more responsible and sustainable. Ormerod (2014) cites Franco and Montibeller (2010) and Rouwette (2011) to reinforce the message that facilitated modeling can encourage learning, which in turn can result in OR practice that is more sustainable. However, his reference is more project-centric than stakeholder-centric.

Finally, research to understand how CST as a state of mind can lead to responsible practice and more effective project outcomes is lacking.

The above discussion considered the nature of consulting in general and how consulting involving a commitment to CST can introduce its own set of issues as well as benefits. Having established the context of the research, the gaps in the extant literature in CST with regards to systems consulting will now be identified.

2.4. Gaps in extant literature

In the foregone overview, three propositional themes were articulated (see section-1.2) and an attempt has been to make explicit the areas of consultancy practice that may be enhanced through CST (see section-2.3). The propositional themes will now provide the focus and structure of a

review of extant literature, which will culminate in the identification of gaps around which research questions are developed.

2.4.1. CST and flexibility

In this section, the lack of a holistic conceptual model to understand flexibility will be exposed and the argument established that flexibility needs to be an inherent element in systems consultancy.

It is argued that consultants and managers need to be flexible in their use of tools and in their ability to navigate both intended and unintended consequences of their actions (Rioz & Suarez, 2012). Grohs et al. (2018) talk about the importance of cognitive flexibility that is necessary in systems thinking along with the three dimensions of problem, perspective and time that they refer to as “fluencies” (Grohs et al., 2018:111) necessary for a systems understanding. Similarly, Mingers and Brocklesby (1997) highlighted three fundamental reasons – nature of problem-situation, nature of outcomes and nature of mixing methods – why pluralism and working across paradigms are important. Given the three key commitments of CST highlighted by Jackson (2000) – boundary critique, methodological pluralism and improvement – a consultant needs to demonstrate self-awareness, open-mindedness and risk-taking abilities. Morgan et al. (2016) note that “cycling between methods” (p. 174) can lead to fresh perspective of the system itself. This calls for the consultant to be flexible and adaptive through the journey and be able to work across paradigms reflecting what Taket and White (1996) would call Pragmatic Pluralism. Midgley (1989, 1990) proposed the extraction of specific aspects of relevant methodologies to be applied for specific purposes. Such purposes may be aligned with Taket and White’s (2000) reference to three kinds of uncertainties – environmental, guiding values and related decisions – to which consultants need to continually adapt and evolve. Sushil (1994, 1997, 2015) builds his Flexible Systems Methodology (FSM) on spectral and integrative theories.

Although various works indicate how to mix-and-match methodologies, extant literature does not talk about the benefits, effects and related nuances of flexibility in the context of systems consulting. I realised that there is a need to articulate how CST may enable consultants to display different kinds of flexibility – cognitive, methodological and resources-related – for both design and implementation of interventions in collaboration with their client. There is no discussion in

extant literature that can bring these aspects together in a rigorous conceptual manner. A scholarly discussion of this would enable both academics and consultants to be more aware of their intervention approach and contribute towards change readiness, adaptation in scenario shifts, appetite for risk and resource resilience.

2.4.2. CST and responsible practice

In this section, the lack of a holistic theory to explain and support responsible practice as a reference for consultants will be exposed and this will provide the basis for a critical exploration of what responsible practice in systems consultancy means.

Wong and Mingers (1994) say that the desire to do socially beneficial work has always been a motivator for the vast majority of OR practitioners. Responsible outcomes for consultants have both human and non-human dimensions as both exist in close interrelationship (Eckersley, 1992; Gregory & Miller, 2014; Ormerod, 2013). The consultant also needs to be responsible for implementation and the sustainability of change (Ashkenas, 2014; McKenna, 2006; Sturdy, 2009). As the business context is always dynamic, a consulting intervention needs to be looked upon as one that is also dynamic. To cite Schein (2016), a consultant's role is not to find a solution for the client, but the "next adaptive move" (p. 24) for which, facilitators/consultants and clients need to be both engaged at all stages (Jackson, 2000). Gregory and Ronan (2015) take this argument forward to explain the client-consultant relationship in terms of structural coupling, a concept developed by Maturana and Varela (1992).

An important aspect of responsible practice is problem-structuring. Problem-Structuring Methods (PSMs) require a combination of technical, institutional and heuristic understanding (Murphy, 2005) and they have the potential of bringing together a variety of factors such as negotiation devices, accommodations of multiple positions, power relations, understanding and learning, ownership of problems, and consequence of planned actions (Daellenbach, 2001; Foote et al., 2007; Franco, 2007; Jackson, 1991a; Mingers & Rosenhead, 2004; Ormerod, 1997). It is important to note that Cordoba-Pachon (2010) says that systems thinkers use their own terminologies that often sound alien in general management practice. He further highlights the danger of problem-structuring from a systems standpoint ending up being cumbersome and time consuming. I

therefore suggest that systems methodologies be approached as reference points if the situation demands rather than using them in their pure form.

The consultancy process itself needs to be critically understood, which is often laden with contextual opaqueness, ideological constructions, deceptive practices and ethical dilemmas (Allen & Davis, 1993; Alvesson et al., 2009; De George, 1986; Hamann, 2012; Ormerod & Ulrich, 2013; Parsons, 1996; Smith et. al., 2003; van Rooyen, 1996; Yolles, 2006;). This is where boundary judgements come into play and the considerations of cognitive, methodological and ethical dimensions (Midgley, 2000; Midgley & Pinzón, 2011). On a similar theme, Snowden (2015) talks about “sufficiencys”, i.e. the amount of information that can be deemed sufficient to inform justifiable boundary conditions.

To introduce a critique to CST itself, Midgley (1996) says that considering that individual value-based boundary judgements remain at the centre of interventions, CST can drop the claim of being metaparadigmatic. With this critique, Midgley and Pinzon (2011, 2013) propose “systemic mediation” (p. 607) based on one’s moral reasoning. Pulling several strands together, Jackson (2019) talks about how CST can aid in enabling responsible leadership in modern-day complexities. However, what is missing is a reference to defining standards for consultants that can inculcate responsible practice.

Extant literature does not fully address what it means to act with responsibility for systems consultants. Discussions in the realm of postmodernism and pragmatic pluralism (see section-2.4.1) can shift the consulting lens to consider responsibility of project outcomes to multiple variables, not just closure with a report. It is more about building systemic capacity with good intent in its purpose and practices (Collier & Esteban, 2000). Consultants need to draw from various disciplines and consider multiple factors that protect the client-consultant relationship and make it meaningful. Extant literature does not bring together such holistic outcomes for consultants under one umbrella. To me therefore, being aware of responsible practice is important considering one’s own value-judgements. A holistic consideration of what responsible practice means for systems consultants in practical terms is a gap in literature that needs to be addressed.

2.4.3. CST as a state of mind

In this section, the absence of a robust argument in favour of CST being used as a mindset rather than being guided by methodologies and frameworks will be revealed, and I will argue for a more pragmatic stance for CST that I call the state of mind and the need for a conceptual support for this stance.

A state of mind is different from a mode-2 form of knowledge creation. Whereas in mode-1 form of problem-solving the consultant adopts an approach that is process-bound and has methodical rigour, mode-2 form is one that is exploratory and reflective (Checkland & Scholes, 1990; Gibbons, et al., 1994; Jackson, 2002, 2009). Mode-2 brings in agility and adaptiveness to serve the needs of a variety of stakeholders. Often, we need to go beyond just mode-2 to think and act beyond traditional systems paradigms and work with other frameworks and approaches as dominant reference-points. Gu and Zhu (2000) draw from oriental traditions to say that real-world projects are conditioned by a dynamic interaction between *wuli* (relations within the world), *shili* (relations between the self and the world), and *renli* (relations between the self and others) that calls for constant contextualisation and adaptiveness. From my own experience, I can humbly admit that the breadth of systems methodologies available means that I will not have the expertise to use many of them. This challenge has also been highlighted by Brocklesby (1997) on being multimethodology literate and the role of cognitive feasibility in enabling the same. The implication this has had on my consulting practice is that I have often been inspired by several of these methodologies, and my emphasis has not been on the methodology per-se, but its affect in application. In several of my works (see section-3.6), CST has been a state of mind.

Snowden (2015) highlights the preference for individuals-and-interactions over processes-and-tools, and change-responsiveness over plan-adherence. Ormerod (2013) refers to OR practice as a “craft” (p. 332) that is based on intuition and experience. Schön (1983, 1987) popularised the importance of acting reflectively on the spot and being driven by tacit knowledge. Other scholars such as Fook (1999), Broekmann and Cornish (2000), and Perdomo and Cavallin (2014) talk about contextuality for the success of an intervention that is driven by reflection, intuition, and artistry. In pursuing this path, tacit knowledge plays a significant role (Schön, 1987). Learning remains a central element in the process of doing and in the enhancement of tacit knowledge through reflection-in-action (Khisty & Khisty, 1992; Schön, 1987) through contextualisation, application,

and modification (Schön, 1992). Cordoba-Pachon and Midgley (2003) suggest that the criteria for ascertaining the sustainability of outcomes based on such practice may also not be fixed and there is a need for constant iteration and a break-away from traditional thinking about sustainable outcomes. Botla (2009) even goes on to present a detailed case relating the Gandhian orientation that brought together the diversity of India for the freedom struggle as an application of systems thinking to bring about peaceful and revolutionary change.

Despite prevailing discussions on the ability to be contextual, reflective, and adaptive, a thorough discussion on the ability of a consultant to operate with CST as a state of mind is missing. Consultants who are knowledgeable of CST may need to borrow from systems approaches but not apply them directly. Often, consultants may be inspired by systems methodologies and use them in creative or pragmatic ways perhaps because the original methodological proposition may not be relevant in a particular context or the methodology in full may be too complex for a specific situation. In other cases, consultants may have to use a separate framework outside traditional systems thinking but they may want to use systems methodologies as an inspiration. Extant literature does not cover any conceptual support for CST to be deployed more like a state of mind to deliver flexible and responsible management consultant practice, which is a gap that needs to be addressed.

2.5. Research Questions

I cannot claim that the research questions were designed prior to the research undertaken, but looking back, they provide a rationale and focus to the research and if the research had been undertaken with a PhD in mind then this is what they would have been:

CST and flexibility

- (1): What would it mean for a systems consultant to be flexible?
- (2): Why would it be important for systems consultants to be flexible?

CST and responsible practice

- (3): What would it mean for a systems consultant to engage in responsible practice?

(4): How would knowledge of CST make a systems consultant more inclined to responsible practice?

CST as a state of mind

(5): In what ways would CST serve as a state of mind in supporting flexible and responsible systems consultant practice?

Considering the above secondary research questions the following **primary research question** provides a dominating unifying logic.

(6): What conceptual support would be necessary for CST to aid flexible and responsible systems consultant practice?

2.6. Conclusion

In this chapter, gaps in extant literature were identified that formed the basis for formulating six research questions, including one primary research question, around three propositional themes. The next chapter will discuss how my publications provide answers to the research questions.

3. Presentation of published works

3.1. Introduction

In this chapter, thirteen publications will be discussed. Emphasis is placed on insights and learning from these publications that serve to provide answers to the research questions presented in the previous chapter. Third-person language will be used to indicate a study of my own works as a researcher.

3.2. (1): What would it mean for a systems consultant to be flexible?

Four publications are considered to answer this research question.

1. Strategic Convergence: Overcoming Differences in a Professional Setup (Chowdhury, 2019b)
2. Organisational Collaboration in a Professional Services Firm (Chowdhury, 2019c)
3. Micro-insurance and community engagement (Chowdhury, 2019d)
4. Holistic Flexibility (Chowdhury, 2019g)

This research highlights several behaviours and examples that indicate what it means for a systems consultant to be flexible and it highlights different kinds of flexibility.

The consultant incorporates flexible use of methodologies seamlessly and meaningfully in problem-structuring and problem-solving:

Chowdhury (2019b) discusses how, in the context of Healthcare Information Systems (HIS) in the UK, two systems methodologies, SSM (Checkland, 1981) and SAST (Mason & Mitroff, 1981), can be deployed in combination between factional stakeholders to collaboratively come up with solutions. Applying methodologies in combination to address a single problem-situation indicates flexibility in thinking, methodologies and in resources. The outcome achieved could not have been possible with the deployment of just one methodology in the context under consideration. In the case-study of a Public Relations (PR) firm in India, Chowdhury (2019c) describes how consultants

can creatively draw from different systems methodologies – VSM (Beer, 1985), SSM (Checkland, 1981), and CSH (Ulrich, 1983) – in a change management intervention. Chowdhury (2019c) indicates how CST can help in extracting specific aspects from relevant methodologies to be applied for specific purposes, a notion known as partitioning (Flood, 1989; Midgley, 1989), to achieve outcomes touching various aspects in an organisation. Chowdhury (2019d) proposes a conceptual framework for community engagement in micro-insurance based on a study in India. The research indicates how systems methodologies can be applied in their entirety or in part to enable community participation of a “higher order” (Brett, 2003:5) with the proposed use of SSM (Checkland, 1981), CSH (Ulrich, 1983), VSM (Beer, 1985), Scenario Planning (Heyer, 2004; van der Heijden, 1996), SAST (Mason & Mitroff, 1981) and Drama Theory (Levy et al., 2009). Flexible use of methodologies and their anticipated benefits in the research are summarised. The approach suggested in this research (Chowdhury, 2019d) demonstrates how consultants can deploy five different types of integration of techniques that was proposed by Sushil (1994). The conceptual model proposed here can be considered as addressing Jackson’s (2019) view that a genuine pluralist approach must “multimethodological as well as multimethod” (p. 573).

The consultant borrows knowledge and inspiration from diverse disciplines to make sense of the problem situation:

Chowdhury (2019b) demonstrates how flexibility can be displayed in consulting interventions by drawing inspiration from complementary disciplines. He narrates how he borrowed from economic theory to arrive at two major forms of rationalities (Simon, 1976 reprint) – substantive and procedural – that needed addressing. He further highlights the use of personas, a concept borrowed from marketing theory, to understand stakeholder groups and arrive at how to collaboratively approach the problem-situation (Chowdhury, 2019b). Application of complementary disciplines creatively to generate insights for organisational development, leadership studies and human rights is also evidenced in the works of Acevedo (2011a,b) and Acevedo & Warren, (2012). This progresses research on understanding the power of stakeholder involvement and learning in the creation of IS design proposed by other scholars (Champion, 2001; Champion et al., 2005; Zlatanović, 2017). Bringing together SSM and SAST for IS inspired by understanding of economic and marketing theory is a unique contribution of this research. The research presented aligns with scholars such as Cano (2004), Mora, et. al. (2007), and Snodgrass and Szewczak (2002)

who call for a more integrative approach to IS by going beyond artificial disciplinary fragmentation. The case-study of the PR firm in India (Chowdhury, 2019c) makes a distinctive contribution with the application of the Requisite Organisation (RO) (Jaques & Clement, 1991) theory with inspiration from a range of systems methodologies. This research demonstrates how RO can be used as a “dominant” approach (Jackson, 2019:541) for organisational interventions along with select systems methodologies to aid it like “dependent” methodologies (Jackson, 2019:541). There has been an attempt to bring together VSM and RO by Prinsloo (2019), but it falls short of leveraging the wealth of other systems methodologies with RO. In the micro-insurance publication, Chowdhury (2019d) highlights the use of Scenario Planning and Drama Theory that goes beyond deployment of traditional systems methodologies to enrich an intervention.

The consultant is aware of different kinds of flexibility and understands their positive implications in practice:

The NHS HIS publication (Chowdhury, 2019b) highlights how cognitive flexibility can enable consultants to draw from different disciplines, and how methodological flexibility can enable them to deploy different methodologies. An important finding from the research of Chowdhury (2019b) is how going through an exercise where systems methodologies are used flexibly can enable participants’ worldviews change, as was reflected in changing ratings in the ‘assumption rating’ stage of SAST. This relates to what Jackson (2019) says is the unfolding in social reality as an important outcome that SAST can deliver. The case-study of the PR firm in India (Chowdhury, 2019c) highlights how cognitive flexibility can help consultants bring in an array of systems methodologies with RO theory and how methodological flexibility can help them integrate the same in practice. Additionally, resource-related flexibility was essential to implement the approach. The micro-insurance research (Chowdhury, 2019d) highlights the importance of cognitive, methodological and resource-related flexibility.

The consultant is able to overcome challenges of combining methodologies:

Through his works, Chowdhury (2019b,c) demonstrates how he was able to overcome the feasibility challenges associated with combining methodologies (Mingers & Brocklesby, 1997). This is especially notable when just the sole use of SSM itself can be challenging, given that the

spread of quantitative and qualitative information SSM generates at times can be overwhelming (Gorgiou, 2015). Coming to the, the micro-insurance conceptual framework (Chowdhury, 2019d), it would need the consultant and the implementation team to look beyond philosophical commitments, cultural affinities, and cognitive restrictions.

Identification of three kinds of flexibility:

Pulling his experiences and understanding together, Chowdhury (2019g) identifies three kinds of flexibility and relates them to the aspect addressed, their dependency and related discipline; see table-3.1.

Types of flexibility	Aspect addressed	Dependency	Related discipline
Cognitive flexibility	Thinking	Nature-Nurture	Psychology, Psychiatry
Formulative flexibility	Planning	Frameworks and Models	Management, Administration
Substantive flexibility	Action	Resource Availability	Material Sciences, Finances, Human Resource, Supply Chain

Table-3.1: Three kinds of flexibility (Chowdhury, 2019g:416)

Categorisations of flexibility by others such as Atkinson (1984), Gupta and Nagpal (2015) and Price (2007) can be all aligned to what the author would call “substantive flexibility”. The work considered here (Chowdhury, 2019g) is the first categorisation of flexibility within a rigorous conceptual framework and its understanding from various dimensions with a scholarly pursuit.

Summary:

On the basis of the foregoing discussion and in answer to the research question, a systems consultant being flexible means being able to seamlessly incorporate a variety of systems methodologies in addressing problem-situations, be able to borrow knowledge and inspiration from diverse disciplines, and leverage different kinds of flexibility – cognitive, formulative, and substantive.

3.3. (2): Why would it be important for systems consultants to be flexible?

Three publications are considered to answer this research question.

1. Strategic Convergence: Overcoming Differences in a Professional Setup (Chowdhury, 2019b)
2. Healthcare knowledge management and problem structuring (Chowdhury, 2019e)
3. From Barriers to Boundaries: Learnings for a Healthcare IT project failure (Chowdhury, 2019f)

This research highlights several benefits of flexibility for a systems consultant and points towards the dangers of inflexibility.

The consultant is able to effectively identify and scope problems, and drive meaningful outcomes:

Chowdhury (2019b) narrates how a flexible approach helped engage with factional stakeholders to achieve what he calls “strategic convergence” (p. 178) leading to the creation of a normative approach for HIS, which can be understood as new knowledge from an activity theory perspective (Engestrom, 2000). The approach presented can contribute directly to enabling effective technology-led change that can in-turn enable better healthcare outcomes (Dwivedi et al., 2007). Chowdhury (2019e) presents a case-study of the deployment of VSM as a problem-structuring method (PSM) (Rosenhead, 1989) in the UK NHS. The research indicates how VSM can be accompanied by creative use of qualitative tools to aid understanding of a problem-situation in a flexible manner. Chowdhury (2019e) narrates how cognitive, formulative and substantive flexibility led him to take a bold step of shifting from the initial project mandate of problem-solving to problem-structuring. This is an important consideration when Ulrich (2012b) notes that problem-structuring skills of OR practitioners lag behind problem-solving skills. The research (Chowdhury, 2019e) suggests that a consultant’s flexible approaches need to be supported by the host organisation with flexible resources-allocation. It is to be noted that this project was part of a

Knowledge Transfer Partnership (KTP) programme, where objectives often change and there are multiple factors to navigate through that may result in frustration for a KTP Associate (White et al., 2019). Chowdhury (2019e) demonstrates how such situations may be overcome with a thorough focus on problem-structuring rather than diving directly into problem-solving. The research highlights how VSM, a ‘hard’ structural diagnosis method, can be used to delve into ‘softer’ dimensions in a problem-situation. There have been other instances of the VSM for PSM in works such as those of Harwood (2019), Lowe et al. (2017), and Preece and Shaw (2018). Rodriguez-Ulloa and Paucar-Caceres (2005) similarly bring together SD, a hard systems methodology, and SSM, a soft systems methodology, to create what they call Soft System Dynamics Methodology (SSDM) for problem structuring. However, in this research VSM as a method for PSM has been used in combination with a range of other tools from anthropology and sociology offering valuable learning for managers and IT planners.

Flexible approaches can enable stakeholder inclusion and participation in an intervention to arrive at meaningful outcomes:

Chowdhury (2019b) narrates how sequential application of two methodologies – SSM and SAST – complemented with other tools, helped addressing concerns of “communication distortion” between stakeholders (Andoh-Baidoo & Ngwenyama, 2005:2100) related to the sole-use of SSM in IT/IS projects. The case-study of the creation of a normative approach to HIS highlights how flexible use of systems methodologies can enable stakeholders move from seeking “fact-based agreements” to aspiring for “values-based consensus” (Chowdhury, 2019b:179).

Inflexibility can lead to unintended undesirable consequences:

Chowdhury (2019f) highlights how inflexibility and lack of adaptiveness can lead to dangerous consequences and even project failure. Highlighting the dangers of inflexibility, the author lays out necessary qualities to achieve a shift from a “barrier” to a “boundary” mindset (Chowdhury, 2019f:135). Whereas barriers are prohibitive and limit exchange of ideas and reduce collaboration, boundaries play a protective role to facilitate critical thinking and practice.

Summary:

Insights drawn from the publications answer the research question by indicating that flexible approaches can lead to positive impacts in the mode of engagement between consultants and clients by helping in effective problem-structuring, stakeholder-participation, and in leading meaningful outcomes. The author highlights how inflexibility, lack of transparency and inability to adapt can lead to dangerous consequences.

3.4. (3): What would it mean for a systems consultant to engage in responsible practice?

Three publications are considered to answer this research question.

1. Building systemic capability in an NGO setting (Chowdhury, 2019h)
2. Sustainable urbanisation and community engagement (Chowdhury, 2019i)
3. Electronic Public Health and e-Governance (Chowdhury, 2019j)

The research provides evidence of what responsible practice can mean for systems consultants through various anecdotes and examples of behaviours and approaches.

Going beyond commercial considerations keeping an eye on social good:

Chowdhury (2019h) presents a case-study of a cause-related project taken up on a pro-bono basis with an NGO in India that highlights how it demonstrated consulting with responsibility (Ackoff, 1977) and the ethical stance of social good (Ackoff, 1974; INFORMS, 2020). The case presents how a sense of responsibility can compel a consultant to look beyond commercial considerations in choosing a project.

Brings in a range of considerations for effective intervention design:

Chowdhury (2019h) narrates how the adoption of a rights-based approach (Right to Life, 2014) can overcome challenges posed by a welfare-based approach in the development sector that is piecemeal and short-lived according to the *Poverty Eradication Network* (date not available). Based on a case-study in India, Chowdhury (2019i) demonstrates how a sustainable urbanisation

model can be created based on three archetypes – mechanistic (addressing efficiencies), cultural (addressing participation and cultural nuances) and transformative (addressing power-relations) – highlighting important learning to address challenges posed in citizens’ participation in urban planning that have been identified by various scholars (Böhler-Baedeker & Lindenau, 2013; Chado, 2017; Mullen et al., 2011, Singh, 2013). The electronic Public Health (ePH) publication (Chowdhury, 2019j) proposes a visionary architectural framework for ePH in India with two important considerations – illiteracy and linguistic diversity. Discussions presented in this research can contribute in creating an information culture in the society as proposed by Earl (1998) and towards an e-governance agenda at the policy level (Das & Chandrashekhar, 2006). Additionally, the research built on the four stages of progression of e-government put forward by Layne and Lee (2001) introducing a fifth stage of “engagement” (Chowdhury, 2019j:343). In light of challenges in the Indian public health scenario highlighted by other scholars such as Mukul (2018) and Rathi (2019), and given that a similar model for ePH currently does not exist, the visionary architectural framework (Chowdhury, 2019j) can be regarded as a distinct example of responsible practice.

Adopts approaches that are inclusive and empowering:

In the child protection research, Chowdhury (2019h) demonstrates how consultants can use the River of Life (Wanless, 2013) tool to overcome challenges of effective data collection with children. Similar findings are also reported by Harper et al. (2010). Through the deployment of River of Life, Chowdhury’s (2019h) research also presents a case to further the use of artistic practice as a form of inquiry as also propounded by Makela, et. al. (2001). In the sustainable urbanisation case-study, Chowdhury (2019i) narrates how inspiration was drawn from the principles of Social Systems Design (SSD) (Churchman, 1979). The programme was noted as flexible and adaptive to accommodate differences in stakeholder requirements in urban planning. The research (Chowdhury, 2019i) demonstrates how systems thinking can help design of approaches that can overcome apparent challenges of formal government-driven programmes in urbanisation and empower citizens to come-up with and own their own solutions. The research (Chowdhury, 2019i) can also serve to complement other works like the application of system thinking causal loop modelling (Ram & Irfan, 2021) in resolving the water crisis in India brought about by several factors including rapid urbanization to present a more holistic solution. Both the cases (Chowdhury, 2019h,i) presents evidence of what Ochoa-Arias (2004) and Ufua, et al. (2018)

would call meaningful community engagement “that involves enabling people from local communities to have a substantial input into framing both the issues to be discussed and potential actions to address them...” (p. 773). The approach presented in both research (Chowdhury, 2019h,i) aligns with responsible consulting practice considering what Li and Zhu (2014) would define OR as “a world-building discourse that shapes society” (p. 152).

Not only creates design, but also brings in considerations of implementation and sustenance of initiatives:

Chowdhury (2019h) narrates a collaborative model for the development of a child protection framework and a governance framework, and how the approach adopted can help consultants build adequate capability in NGO teams for implementation and sustenance of initiatives. Chowdhury (2019h) considers the project in light of the Theory of Change demonstrating a focus on long-term impact. Further, this publication demonstrates how effectiveness can be built into a child-protection framework with the Resilience Model (Daniel & Wassell, 2002). With this, the publication (Chowdhury, 2019h) makes a contribution by highlighting several categories of responsible practice – in terms of motivation, the engagement-process, and intended outcomes. It also serves as an example of effective deployment of systems methodologies for community OR, which is particularly known to be useful in the context of developing countries (Ibeanu, 2000; Ikelegbe, 2005a,b). In the ePH research, Chowdhury (2019j) refers to Midgley (2006) on systems methodologies for citizens’ engagement for public health IS and Boehm (1988) to recommend a spiral-model of software development from a technical standpoint. The approach aligns with argument presented by Dwivedi et al. (2001), who argue for a context-based dynamic approach for HIS, and Gaitonde, et. al. (2017) and Gaitonde, et. al. (2019), who emphasise on community participation as a strategy for health system strengthening and accountability. Implementation challenges for the visionary framework are also presented that can be considered as a sign of embracing deployment responsibility. The publication (Chowdhury, 2019j) makes a contribution by demonstrating an approach that Cordoba-Pachon and Orr (2010) would call an “alternative approach to planning” (p. 58).

Summary:

This research answers the research question by generating evidence that responsible practice means that consultants can overlook commercial considerations for projects doing social good, bring in a range of considerations for intervention design, adopt approaches that are inclusive and empowering, and finally, be responsible not just for intervention design, but also for the implementation, capability building and sustenance of initiatives.

3.5. (4): How would knowledge of CST make a systems consultant more inclined to responsible practice?

Five publications are considered to answer this research question.

1. Corporate Reputation (Chowdhury, 2019k)
2. From restructuring to optimisation: Enabling a sales and marketing function (Chowdhury, 2019l)
3. Micro-insurance and community engagement (Chowdhury, 2019d)
4. Organisational Development (Chowdhury, 2019m)
5. Holistic Flexibility (Chowdhury, 2019g)

This research provides evidence of how knowledge, awareness and interest in CST can influence a consultant to display traits that are inclined to responsible practice.

Builds approaches/frameworks and provides solutions that are systemic, values-centric, and sustainable:

Chowdhury (2019k) builds the “systemic approach to corporate reputation” (p. 493) that has business values and stakeholder engagement at its core, thereby demonstrating an inclination to responsible practice. Chowdhury (2019k) brings in insights from stakeholder theory (Agle et al., 1999; Ameshi, 2010; Bonini et al., 2009; Cutlip et al., 1994; Freeman, 2011; Mitchell et al., 1997) and presents his experience of developing a stakeholder engagement platform for PR consultants. Gregory (2000) talks about the need for PR consultants to move from a focus on effects of communication strategies to a focus on stakeholder understanding and dialogue. She further

expresses the gaps in most PR literature, “including some of the most influential”, not applying systems thinking (Gregory, 2000:266), a gap that the “systemic approach to corporate reputation” (Chowdhury, 2019k:493) bridges. While narrating a case-study of a change management intervention, Chowdhury (2019l) describes how critical thinking, openness to boundaries and a flexible approach helped the consulting team bring about a shift in the initial client-mandate of downsizing workforce to a new order of organisational development, demonstrating responsible practice in the nature of the client engagement. The research indicates that a CST mindset can lead to visible shifts in client engagements to consider the whole organisation as a connected system. At a time when enough has been written on the dangers associated with short-term focused restructuring, mindless downsizing and insensitive layoffs (Cohee, 2018; Fiorelli, 2014; Sucher & Gupta, 2018; Throop, 2009), this research offers a perspective on how organisational transformation can be addressed with sensitivity, inclusion and responsibility. Chowdhury (2019m) dedicates a publication to Organisational Development (OD) to build what he calls the “systemic OD matrix” comprising of two axes – “dimensions” and “components” (Chowdhury, 2019m:464). Whereas “dimensions” exist at a strategic level as organizational pillars, “components” exist as a tactical level that focus on specific aspects of the organisation. The contribution of this research (Chowdhury, 2019m) can be noted as whilst other works also talk about a systems approach to OD (Anderson, 2010; Cheung-Judge & Holbeche, 2015; Cummings & Worley, 2015; McLean, 2006; Rothwell & Sullivan, 2010), discussions remain at the level of what the author would call “components” and not considering overall “dimensions”. In the micro-insurance publication, Chowdhury (2019d) describes how the proposed conceptual framework can enable consultants to work alongside the community to articulate insurance benefits-packages and support collaborative implementation of schemes. This approach aligns with a recent opinion in a leading financial mainline publication in India (Live Mint, 2020) that says that micro-insurance product benefits need to be clearly articulated so that beneficiaries are not left in ambiguity of what they have signed-up for. Research presented in the publication (Chowdhury, 2019d) indicate several advantages of systems methodologies to enable community participation of a “higher order” (Brett, 2003:5).

Frameworks go beyond just design and are inclined to consider implementation with a sense of responsibility and inclusion:

While building the “systemic approach to corporate reputation” Chowdhury (2019k:493), provides guidance on the deployment of the approach making it practical for consultants. Although various works (Aisyah et al., 2018; Fleet, 2009; Hiscock, 2017) talk about different skills required for PR practitioners to operate effectively, there has been a lack scholarly contribution that could bring the multiple dimensions under one conceptual framework with its base pinned on organisational values, both intellectually and practically, a gap this research (Chowdhury, 2019k) fills. In the OD publication, Chowdhury (2019m) proposes a pragmatic stance and suggests that consultants need to build capacities and enable infrastructure within their client for sustenance of interventions upholding “humanistic values” (p. 459).

Builds solutions that positively influence the wider society:

Chowdhury (2019d) indicates that application of CST in community participation in micro-insurance can contribute towards enhancing social inclusion, financial literacy, and women’s empowerment that can contribute at the policy-level in the context of India. Majumdar and Reji (2020) say that creating systems that build community capacities, facilitate participation, and enable empowerment in the financial ecosystem is now emerging as a new paradigm in development itself. Further, empowerment of communities has the potential to generate ripple effects in social contexts (Pinzon-Salcedo & Torres-Cuello, 2018) A conceptual framework for the use of systems methodologies for community participation and empowerment in micro-insurance was a gap in literature that this research fills (Chowdhury, 2019d).

Arriving at a holistic model of responsible systems consulting:

Pulling all his experiences and learning together, (Chowdhury, 2019g) draws together, in one holistic model, the categories of outcomes of responsible systems consulting practice – systemic value-add, emancipation and sustainable solutions – set within the internal and external constraints that a consultant operates in. Extant literature does not bring together such holistic outcomes in a way that is relevant for consultants, a gap that this research fills.

Summary:

This research generates evidence that knowledge of CST can lead consultants to be more inclined to responsible practice because they build models and provide solutions that are holistic, values-centric and sustainable, their frameworks/models are inclined to consider implementation with a sense of accountability and inclusion, and finally they build solutions that positively influence the wider society. This research systemically articulates the categories of responsible practice and responsible outcomes that serve as evidence to answer the research question.

3.6. (5): In what ways would CST serve as a state of mind in supporting flexible and responsible systems consultant practice?

Six publications are reconsidered here to answer this research question.

1. Organisational collaboration in a professional services firm (Chowdhury, 2019c)
2. Sustainable urbanisation and community engagement (Chowdhury, 2019i)
3. Electronic Public Health and e-Governance (Chowdhury, 2019j)
4. Corporate Reputation (Chowdhury, 2019k)
5. From Restructuring to Optimisation: Enabling a sales and marketing function (Chowdhury, 2019l)
6. Organisational Development (Chowdhury, 2019m)

This research points to how knowledge of and an informed interest in CST can act as a state of mind or as a second-nature for systems consultants to support flexible and responsible practice.

The consultant deploys tenets of CST in their intervention without explicitly using any traditional systems frameworks/methodologies:

In the context of a PR firm in India, Chowdhury (2019c) presents a case-study where Requisite Organisation (RO) was chosen by the consulting team to be the primary approach generating evidence on how insights from systems methodologies can be used to benefit the client engagement process within the ambit of a separate framework. Although the overall thinking that

drove this intervention was based on the systems paradigm, no systems methodology was used in its entirety, but as influencers. In the sustainable urbanisation publication, Chowdhury (2019i) builds a community engagement programme based on Social Systems Design (SSD) (Churchman, 1979) but without deploying any systems methodology. The case narrated an initiative of how the consultant could bring together a range of stakeholders and embrace diverse skills-sets, challenge established authority, and empower citizens. Openness and flexibility also allow stakeholders to bring with them their cultural emotions that need to be inherent in urban projects (Acevedo & Carreira, 2010). The author goes on say that when there are multiple stakeholders with varying levels of understanding, introducing formal systems methodologies may confuse or complicate the process (Chowdhury, 2019i).

The consultant designs engagement models inspired by CST without prescribing traditional systems methodologies:

In the ePH publication, Chowdhury (2019j) argues that architecting effective IS for public health needs CST. Placing the problem-situation in the complex-coercive cell of the System of Systems Methodology (SOSM), the author recommends a postmodernist approach in the ePH design and implementation. However, no systems methodologies were directly employed to develop the ePH. In the corporate reputation publication, Chowdhury (2019k) provides practical guidance for PR consultants through a three-stage approach to see through stakeholder divides and craft relevant engagement strategies without explicitly using any systems methodologies. This is reminiscent of the argument that CST can be a state of mind that leads, guides and informs action. Moving to the OD publication, Chowdhury (2019m) proposes the “systemic OD matrix” (p. 464), without suggesting any specific systems methodologies. The research indicates how with the knowledge of CST, consultants can touch upon several aspects in an OD intervention – such as the building blocks of “components” & “dimensions” (Chowdhury, 2019m:464), humanistic values, learning and unlearning, employee empowerment and capacity building, consultant-client proximity and sustenance initiatives.

The consultant works across consultancy and systems frameworks in a seamless manner as per the demands of the situation:

Research presented in the organisational transformation case-study (Chowdhury, 2019l) indicates how a process of boundary critique and sweeping-in of multiple perspectives can help a consultant deploy CST as a state of mind with other established management consulting approaches. No traditional systems methodologies were used in the case, but it drew from Capra (1996) to understand patterns that were emergent from processes.

Summary:

This research generates evidence of how consultants can deploy CST in flexible and responsible systems consulting without explicitly using any traditional systems framework/methodology thus answering the research question. Evidence provided indicates that CST as a state of mind can inspire design of engagement models and that the consultant can work across general consultancy and systems frameworks in a seamless manner.

3.7. (6): What conceptual support would be necessary for CST for aiding flexible and responsible systems consultant practice?

This is the primary overarching research question.

Research presented in this chapter highlights how cognizance of certain principles can help consultants in applying CST to aid flexible and responsible practice. Evidence was provided of how:

- Flexibility can mean openness to challenging conventional paradigms, and different kinds of flexibility can be identified.
- Flexible approaches can lead an intervention towards meaningful outcomes and that inflexibility can lead to dangerous consequences.

- CST can compel a consultant to look beyond commercial considerations, consider a range of dimensions for intervention design, adopt empowering approaches and be responsible for implementation and capability building.
- Frameworks and conceptual models inspired by CST are holistic, values-centric and sustainable.
- Consultants can deploy CST as a state of mind for flexible and responsible systems consulting. Further, they can work across mainstream consultancy and systems frameworks in a seamless manner.

In light of the above, it is now necessary to pull all of the insights together and demonstrate how a higher-level contribution is made and the overarching research question answered. Two publications (one considered above and another additional) are considered significant to the satisfaction of these objectives.

1. Holistic Flexibility (Chowdhury, 2019g)
2. An Appreciation of Metaphors in Management Consulting from the Conceptual Lens of Holistic Flexibility (Chowdhury, 2020)

Holistic Flexibility is proposed to provide the conceptual support necessary for aiding flexible and responsible management consultant practice:

Holistic Flexibility is the “dynamic interplay between a state of mind that has the ability to absorb systemic complexity, and a state of intervention that has the ability to embrace flexibility both in intent and form” (Chowdhury, 2019g: 404); see figure-3.1.

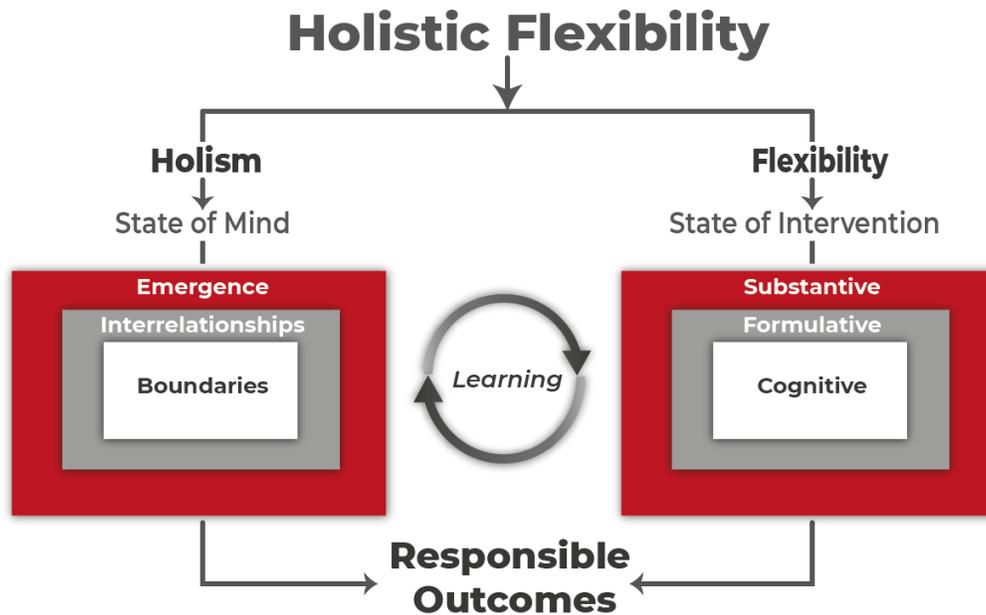


Figure-3.1: Holistic Flexibility (Chowdhury, 2019g:404)

The research indicates key principles that consultants need to embrace while using the conceptual support of Holistic Flexibility – holistic thinking (holism), flexibility and responsible practice (leading to responsible outcomes) that are strengthened by continual learning. Chowdhury (2019g) defines ‘holism’ in light of boundaries, interrelationships, and emergence, and argues that the “consultant will need to thread disparate strands with analysis and logic and yet need to transcend the same in the passage through lateral thinking and connected rationality” (p. 405). Focus on transcendence through lateral thinking and connected rationality justifies the interchangeable use of the terms ‘holistic’ and ‘systemic’. The model makes a contribution to extant literature by identifying three kinds of flexibility (see section-3.2) and by systemically identifying the categories of responsible practice for consultants (see section-3.4).

In his most recent paper, Chowdhury (2020) discusses how Holistic Flexibility can enable creative consulting and consultant wellbeing. Research presented in this paper demonstrates how a sensitive and well-informed approach in using metaphors can enable a pragmatic stance of Holistic Flexibility to enable a creative journey. The research highlights creative tension, dialogic openness and humble informality between the consultant and their client as realised benefits of this

pragmatic stance. The use of creativity in management research has also been noted by other scholars (Acevedo & Johnson, 2013; Adler, 2006; Cordoba-Pachon, 2019; Engel, 2002; Taylor & Ladkin, 2009).

Chowdhury's (2019a, 2020) works have helped label the emerging unconventional deployment of CST by practitioners. This was also highlighted by Dr Luis Sambo (Jackson & Sambo, 2020) who spoke about how CST helped him navigate the on-ground complexities of the Ebola epidemic in West Africa and establish his leadership position in the WHO without having to use systems methodologies in their pure sense.

Jackson (2019) presented extensive advancements in CST considering a wide variety of critiques and brings in "reflection" (p. 594) as a central theme that runs through what he calls Critical Systems Practice (CSP). However, CSP still remains engulfed within the SOSM that Holistic Flexibility moves beyond. Holistic Flexibility can be considered a significant advancement in conceptualising CST as a state of mind for consultants in aiding flexible and responsible management consultant practice and thereby answers the overarching research question.

3.8. Conclusion

This chapter presented the publications considered to answer six research questions around three propositional themes. It was argued that taken together, insights drawn from the publications make a higher-level contribution to knowledge in CST. The next chapter will summarise the contributions, highlight the impact and future areas of this research, and conclude this exegesis.

4. Contribution summary, impact, position, future research and conclusions

4.1. Introduction

This chapter will summarise the contribution to knowledge in CST made through the research, highlight its impact, talk about my position as a consultant, and suggest future research areas. Conclusions will be provided that close this chapter and the exegesis.

4.2. Contribution summary

The review of literature relevant to the three propositional themes discussed in Chapter 2 led to the proposal of six research questions. In the previous chapter, answers to these research questions were drawn from the thirteen published works.

The research methodology adopted through the works involved three approaches: case-study, action research and concept development. It is important to note that while the work conducted was based, at least initially, on the espoused needs of the client and/or the industry/business, there is a golden thread of CST that runs through all the work. Taken together, the work presented makes a contribution to CST at a higher-level captured through the conceptualisation of Holistic Flexibility. This is the first presentation of CST as a state of mind for systems consultants in aiding flexible and responsible practice.

4.3. Impact

My research offers case-studies and insights for practitioners from a consultant perspective. For figures of how CST has been used flexibly and how this has affected situations on-ground, see [appendix 6.1](#). Several benefits in the ‘client’ organisations/situations have been reported in the case-studies presented including greater efficiency and effectiveness in management outcomes, better business metrics, higher collaboration and engagement in situations, and creation of visionary industry-specific models, and consequently, repeat clients. For testimonials from clients, managers, and collaborators, see [appendix 6.2](#). Select works have been incorporated in University-

level education and training – these include a recorded podcast and inclusion of a past paper in recommended reading material. I have presented insights of my works in three webinars. My latest book and previous publications that form part of the book have been cited in various other papers. Soon after the book was published, I was invited to write an opinion-piece in a leading professional platform for PR practitioners on reputation management. For outreach activities and recognitions, see [appendix 6.3](#).

4.4. Position

I would like to make a note on my position as a consultant in the projects presented in this research. I have journeyed through an implicitly political client-consultant reality that Bunge (1979) would call a process of “cultural production”. The projects I have had the opportunity to work on, the teams that I formed as a project lead, and the research collaborations I have established have had my own personal and affiliated organizational motivations and local power-based nuances. Such factors implicitly turn the client-consultant relationship into a highly complex process (Kirsch & Eckert, 1998) that influences how knowledge is produced, legitimated, distributed and consumed (Abrahamson, 1996; Bloomfield & Best, 1992; Kieser, 2002; Suddaby & Greenwood, 2001).

Nikolova and Devinney (2008) talk about two forms of power in the client-consultant interaction: positional power and rhetorical power. Whereas the former is “expressed through the authority of the sponsor and the client project manager”, the latter is “expressed in the actions of consultants” (p. 6). In terms of positional power, there have been instances where, as a consultant, I have played the ‘expert’ role in offering direction to how a project should move and on solutions to address problems. Such actions have also been influenced by the role the project sponsor (client) would have played to steer the course of action to flow in a certain way. Additionally, I can also say that, on several occasions, my relationship with the client organisation was shaped by previously institutionalised power relations (Clegg, 1989; Sillince, 2000). As a consultant, in various instances like these, I had to steer the sponsor mandate and balance the same with approaches that were inclusive and empowering. Rhetorical power, on the other hand, emerges in the client-consultant engagement as a meaning-creating process from the data collected and how the same is interpreted and presented to craft solutions. This was evident at times when I deployed creative tools such as rich picture and river of life where the power to understand and interpret the meaning

of the representations rested with me or were facilitated by me. I have also highlighted this in Chowdhury (2015, 2019h). In this context, Romm (1995) calls for avoidance of self-fulfilling prophecy effect of practitioners through an alternative and empowering deployment of systems methodologies. She further proposes a trusting constructivist approach “to recognise the choices that they [systems practitioners] are making as they create constructions, so that they can account for these in relation to alternatives in social discourse, in an endeavor to earn others' trust” (Romm, 2002:455).

Another dimension of power can also be understood in terms of how I, as a consultant, conceived of the client. Whereas, in several projects that I undertook, the client was considered as a homogenous entity, defining the client itself is a complex process (Hislop, 2002; Kitay & Wright, 2004; O'Farrell & Moffat, 1991; Werr & Styhre, 2003). Organisations are heterogenous entities and they represent assemblages of actors, interests, and inclinations (Arnaud, 1998; Czarniawska-Joerges 1994; Marchington & Vincent, 2004; Schein, 1997; Whittington, 1992). Alvesson, et. al. (2009) point out that problems of oversimplifying the client organisation is common in consultancy case studies because such literature is often authored by consultants themselves. Although I have used CST in challenging mental models and my approaches have also led to redefinition of project scope, in some cases, I still treated the brief from the project sponsor as the project mandate. I have been aware of this position while I have led my projects and I have also talked about this in my research (Chowdhury, 2019g) in terms of three ethical challenges that consultants encounter: (i) ensuring profitability whilst delivering the best outcomes; (ii) acceptance of projects to ensure team utilization and revenue when ethical implication of certain project mandates could be questionable; and (iii) considerations of whose side the consultant may want to lean towards when there is conflict between stakeholders within the client organization.

While cognizance of issues like the above have helped me navigate the situation to create meaning and inclusiveness with stakeholders to a large extent, this is an aspect that will benefit with a more active consideration of my own position as a consultant as I move forward in the process of knowing and acting in future projects.

4.5. Future research

Holistic Flexibility opens a new array of thinking and praxis in systems science. It not only lends a conceptual support for CST as a state of mind, it also lets us reflect on the nature of a systems consultant and the implications this has on the overall direction their work can have. The ideas proposed can be explored beyond systems consultancy for general management. Holistic Flexibility lets us take a step back and reflect on our own thought process, our perceived solutions, and implications of our actions in our society, and in our own lives. The research presented in this submission outlines the principles on which Holistic Flexibility stands. I am currently working on explicating what these principles mean for modern-day management drawing inspiration from the cosmic dance of the *Shiva Nataraja* from Hindu mythology. Certain religious philosophies can offer a holistic framework for a “purpose-oriented approach” (Sur 2017:69) in business and management. Sur (2017) particularly talks about the perspective Hinduism can lend in approaching reality in an integrative manner by breaking silos and merging paradigms. This research aligns with Ivanov (2011) who says that systems practice needs to be developed at the interface of “formal science, political ethics, analytic psychology and religious thought” (p. 493). Whereas significant work has been carried out in CST to draw from natural science, political theory, ecology, complexity, sociology and psychology (Capra, 1975; Flood & Romm, 2013; Ison & Straw, 2020; Jackson, 2019; Midgley, 2000), exploration of religious thought as an inspiration has been limited and can be found in select works of Gu and Zhu (2000), Murthy (1994), Rajagopalan (2020), Shen and Midgley (2007a,b,c, 2015) and Zhu (2000). My current research will be the first attempt to explore the *Shiva Nataraja* in the context of CST. This research will also contribute towards building bridges between disciplines towards integrative studies, which has been a challenge in our educational system as also pointed out by Gell-Mann (2005).

Deliberations and discussions presented in this research can be considered to relate to debates around the fourth wave of systems thinking (Cabrera & Cabrera, 2019). The fourth wave of systems thinking is a shift from the “rational-analytic domain” that the first three waves fall under (Midgley & Rajagopalan, 2021). The currently debated fourth wave expresses concerns regarding the foundation of CST on Habermas’ Knowledge Constitute Interest (KCI), which is itself like a metaparadigm (Midgley, 1996). By virtue of being a (meta)paradigm, KCIs can pose the danger

of sidelining other paradigms. They have a tendency of embodiment of their own assumptions as a result of which, a universal and pluralistic application of such methodologies is limited and even isolationist. Rajagopalan (2020) raises fundamental questions on the systems philosophy underpinning systems thinking, which is he claims is based on a biased assumption that intentionality is the foundation of human consciousness. Midgley (2020) endorses this view and claims that this challenge is endemic to Western philosophical traditions and flows through a lot of the systems thinking literature (Boyd et al., 2004; Fuenmayor, 1991a, 1991b, 1991c; Georgiou, 2000, 2007; Midgley, 2000, 2011, 2020). My research drawing from the philosophy of the *Nataraja* can lead to new explorations of how aspects such as consciousness studies and different ways of knowing can enhance systems thinking.

Holistic Flexibility introduces CST as a state of mind that is further progressed through my most recent research of using unconventional creative applications of CST through metaphors (Chowdhury, 2020) and through inspiration drawn from religious symbolism in my current research. Whether Holistic Flexibility represents a development in the fourth wave of systems thinking or an addition to CST is an area of future research.

4.6. Conclusions

This section serves as a conclusion to both this chapter and the overall exegesis.

This chapter summarised the contribution made by this research, highlighted its impact particularly for what it means for a systems consultant to practice Holistic Flexibility, talked about my position as a consultant, and, finally, touched upon some of the future areas of research in the subject.

The exegesis brings together a body of work based on my experiences and experimentations with CST leading to the development of the conceptual support of Holistic Flexibility. The exegesis began with a literature review of key topics and related propositional themes that led to the identification of knowledge gaps from which six research questions were developed. This was followed by a presentation of selected published works that provided evidence to answer the research questions that, taken together, made a higher-level contribution to knowledge with the articulation of Holistic Flexibility as a conceptual support for CST. This is the first conceptualisation of CST as a state of mind for systems consultants to act flexibly, focus on

responsible practice, and adopt continual learning in the process of engagement and thereby contribute to overall consultant wellbeing. The impact of the works in academia and practice was highlighted. Finally, future research areas in the subject were proposed.

Taken as-a-whole, the research represents a body of knowledge in CST explored under the propositional themes of CST and flexibility, CST and responsible practice, and CST as a state of mind. The questions asked, the answers provided, and the ideas introduced can be considered as forming significant contributions to the ever-evolving discipline of CST.

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6. Appendices

6.1. Figures of flexibility and responsibility in anecdotes mentioned in the exegesis

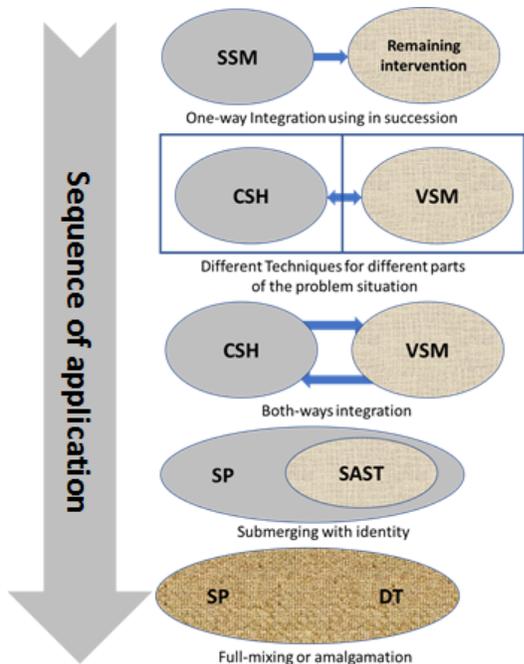
Creative application of systems methodologies in the intervention to enhance organisational collaboration (Chowdhury, 2019c:233)

Perspective	Insights drawn for the intervention	How it was used	Impact
Critical System Heuristics	Inclusion of stakeholders involved and affected in an intervention	Intervention design to make the process inclusive using participatory techniques to embrace the involved and the affected	Greater buy-in of the recommendations across the organisation
		Fair representation of employees across levels in the design & implementation phases	Creation of trustful relationship between employees of the firm & the consultants
		Design of questionnaires exploring critical areas of organisational context and culture	Recommendations closer to the organisational realities to make an actual difference
Viable System Model	Differential value creation across organisational levels	Analysis of the organisation to understand as-is levels & value creation	Detailed analysis exposing repetition of tasks across levels resulting in senior management time loss
		Application of Levels of Work framework in order to create a practical & adequate new structure	Objective assessment resulting in significant role changes in the new structure with identified value creation in different levels
Soft Systems Methodology	People involvement to enable enriched collaborative appreciation of the context	Use of Rich Pictures to appreciate employees' perspectives in a creative manner	Employees to behave in a more natural fashion overcoming their inhibitions
		Use of CATWOE tool to prompt the consultants in regular routine interactions	Obtain a real picture of what could work closest to the situation under consideration
Underlying theme: Enhanced organisational collaboration			

Proposed application and anticipated benefits of CST in micro-insurance (Chowdhury, 2019d:394)

Phase	Core Objective	Recommendation	Anticipated Benefit
Appreciation and Problem Structuring	Understanding the on-ground realities and establishing trust with the community	Soft Systems Methodology	Thrives on embracing and absorbing flexibility in the most fundamental level in understanding the situation with diverse perspectives. Driven by the spirit of understanding and accommodating different human activity systems, SSM prepares the system to be resilient and agile right in the design stage. Through the learning character ingrained into SSM, it enables the system to embrace an approach that is on the continual look-out for betterment by incorporating change in a positive and agile manner.
Product Modelling & Set-up	Research-led scheme structuring, aligned catering to the community needs	Critical System Heuristics	Enables explication of the core, intermediary and peripheral roles stakeholders play in the system, and the articulation of both stated and unstated community dynamics. Helps understand the context in a detailed manner with the appreciation of both internal and external flexibilities, which helps in creating a resilient and sustainable product model.
		Viable System Model	Operating in the insurance space, it is essential for the system to be viable and predictable to ensure fairness and consistency. VSM does exactly this. Well-defined loops and relationships between sub-systems ensure flexibility to be curated and channelized effectively. This enables addressing maturity of the system at an evolved level to effectively navigate through processes, interfaces, actors and strategy.
Sustenance and Phase-out	Building on-ground operational capability in the community and enabling a sustainable scheme	Scenario Planning	Crafting contingencies by considering challenges and constraints that may encounter the community and the scheme in the short-, medium- and long-term. Scenario planning is based on the understanding that change is the only constant and that flexibility is a must for the approach undertaken to be able to react and respond to change. Flexibility is at the heart of Scenario Planning.
		Strategic Assumption Surfacing and Testing	Directing focus on the most probable assumptions and scenarios to make scenario planning more effective, hence giving a direction to uncertainty and flexibility. This leads to enhanced performance of the system in the wake of continual change.
		Drama Theory	Awareness generation, capability building and enabling decision making skills towards building a system that is future-ready. This addresses the requirement of capability building and learning of actors to make them more equipped to operate in a changing system.

Five types of integration of techniques proposed by Sushil (1994) (Chowdhury, 2019d:395)



SSM leads the way for the rest of the intervention with the Appreciation and Problem Structuring phase. This is a sequential first step for a range of integrations to take shape.

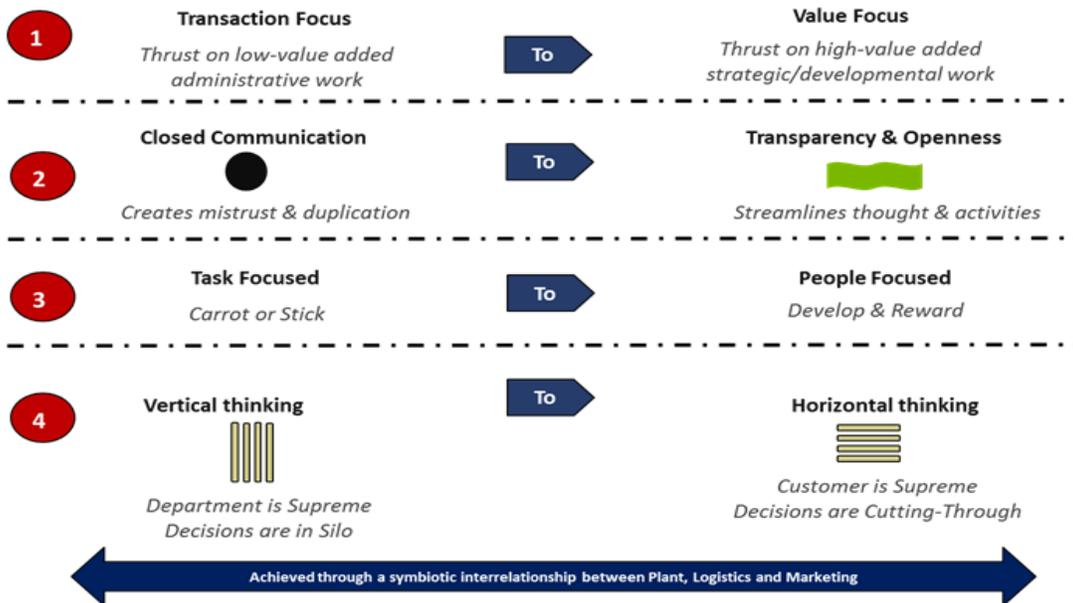
CSH is recommended for Product Modelling followed by VSM for the set up of the operating infrastructure. Two parts of the second phase are recommended to be led by different techniques.

The operating infrastructure set up is informed by socio-cultural insights gathered from the CSH. VSM modelling is recommended to be more customised with the CSH.

For Sustenance and Phase-Out phase, SP is recommended by a SAST tool of Importance-Certainty mapping, where the identity of SAST is completely submerged.

For capacity building, it is recommended that SP and DT are merged to optimise impact and make the touchpoint more "real" for the context under consideration.

Shift in project focus (Chowdhury, 2019l:254)



6.2. Testimonials from clients/manager/collaborators

Testimonial from past academic manager for NHS partnership project (Knowledge Transfer Partnership)

9/21/2020

Mail – Rajneesh.Chowdhury@hull.ac.uk

KTP programme with Rajneesh Chowdhury

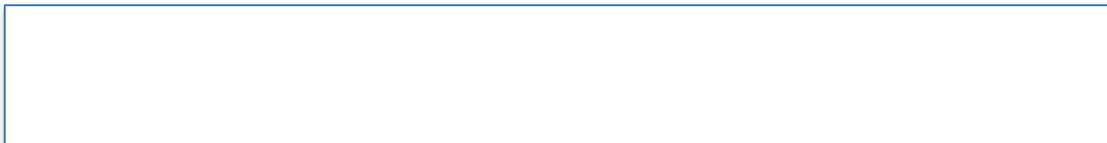


To whom it may concern

I was Rajneesh Chowdhury's academic supervisor for the Knowledge Transfer Partnership (KTP) programme between the University of Hull and the NHS from 2004 to 2006. Rajneesh always demonstrated academic rigour in his work and this was evidenced in his continual application of systems thinking ideas in his approaches. His education in systems thinking helped him bring to the field several tools and methodologies that helped us understand issues from diverse perspectives and craft solutions that were holistic and sustainable.

Our collaborative work resulted in a joint paper between Rajneesh, Professor Steve Clarke and myself in 2007 that Rajneesh has revisited as a chapter in his 2019 book with recent research and perspectives. Based on work undertaken during his KTP Associateship, Rajneesh had two more publications - one sole-authored chapter on healthcare knowledge management in an edited book in 2007 and another on NHS information systems deployment co-authored with his then NHS manager, Alan Nobbs, in 2008.

Rajneesh's ability to combine academic knowledge with practical application and in-turn come out with new academic perspective was a unique strength that Rajneesh brought as a KTP Associate. The University benefited from several publications and academic workshops that Rajneesh hosted. The NHS benefited with new systemic solutions that he brought to the field that resulted in more streamlined health informatics, linguistically inclusive patient information systems and better healthcare outcomes as a result of this.



Sociology
University of Hull
Hull, HU6 7RX, UK
www.hull.ac.uk

Testimonial from past industry manager for NHS partnership project (Knowledge Transfer Partnership)

To whom it may concern,

I was Rajneesh Chowdhury's 'industry (NHS) manager' for the Knowledge Transfer Partnership (KTP) programme between the University of Hull and the NHS from 2004 to 2006. Major projects led by Rajneesh during this time included a technology solution for multilingual healthcare information, a systems modelling exercise to understand the Primary Care Trust structure towards better enablement of ICT, and a series of convergence streams aimed at bringing about alignment between clinicians and NHS managers towards enabling more effective healthcare IS. The work on the alignment between clinicians and NHS managers led to a joint publication between Rajneesh and myself in 2008 as a book chapter that Rajneesh has revisited independently as a chapter in his recent 2019 book.

Rajneesh showed great knowledge and passion to take up challenging initiatives during his tenure as a KTP Associate. He was always proactive in coming up with new ideas, a fast learner and forthcoming to extend support to the wider NHS network whenever required. Rajneesh was able to take the bigger NHS picture into consideration for each of his projects that ensured alignment to the overall vision. He was not perturbed with structural changes that the NHS was undergoing at that time; he was able to be flexible and adaptive in his approach and with his project plans.

Rajneesh's work had several benefits on the ground. These included enabling access to multi-lingual patient information for ethnic minority populations in the city of Hull, achieving strategic convergence between NHS stakeholders to come up with a normative approach to healthcare IS that was later presented to the Local Primary Care Trust, and implementation of an online system between primary and secondary care in Hull to make patient referrals more efficient and effective.

Rajneesh was also nominated for the award of Business Leader of Tomorrow to the Department of Trade and Industry in 2006.

I trust that this is sufficient for your purposes at this point.

Sincerely,

1/2

9/25/2020

Mail – Rajneesh.Chowdhury@hull.ac.uk

NHS Leadership Academy

#OurNHSPeople
Wellbeing support



Testimonial from past/current client



Ref:UTSAH/Ref/2020/30

Date:15/09/2020

SUB: Rajneesh Chowdhury's work with UTSAH

To whom it may concern

Rajneesh Chowdhury was involved in a consultancy assignment with the Universal Team for Social Action and Help (UTSAH), Assam (India) in 2013 to help us develop our organization purpose, vision and mission, and lead on to develop the UTSAH child protection framework and governance framework. Rajneesh associated with us on a pro-bono basis for this project.

We greatly benefitted from Rajneesh's approach that helped the leadership team at UTSAH convene on our purpose of existence and strengthen our operational frameworks. His intervention helped engage with underprivileged children and their families in creative ways to enable us to understand their requirements and strengths that were later leveraged to create inclusive strategies. Rajneesh brought in valuable systems ideas that considered a variety of stakeholders and explored interrelationships. Moreover, he displayed flexibility throughout the process that enabled our frameworks evolve and adapt with emerging conditions on the ground. The fact that Rajneesh closely engaged with our teams and the beneficiary communities through the process also meant that we developed the necessary skills to implement the frameworks.

We continued to stay in touch with Rajneesh and approached him for his advice and support whenever we needed. His work was seminal in the eventual success of our multi-year partnership with UNICEF. Rajneesh is currently engaged with us on creating a first-of-its-kind fellowship program for senior bureaucrats and police officers to create change agents in the lives of children.



UTSAH

Member – Child Protection Committee

Member – Child Labour Task Force

Member – Joint Task Force for Women and Children

Support Person – POCSO Cases (Child Welfare Committee)

Kamrup (M) | Government of Assam



Testimonial from research collaborator



Department of Computer Science Electrical Engineering



September 22, 2020

To Whom It May Concern:

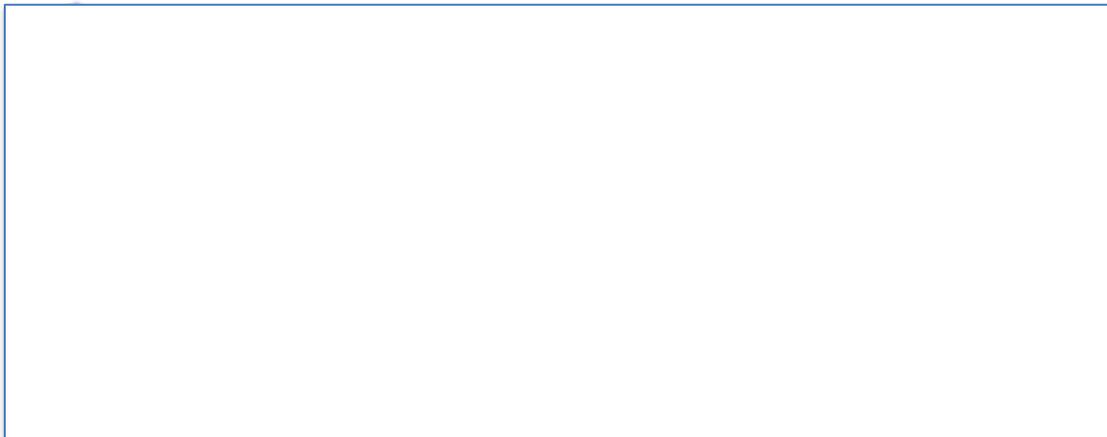
Mr. Rajneesh Chowdhury and I collaborated on a research project to develop a visionary architectural framework for electronic Public Health (ePH) in India considering illiteracy and linguistic diversity that culminated in a joint-publication in 2010. As a collaborator, Rajneesh brought in a highly evolved understanding of systems thinking and positioned our work within the postmodern paradigm for problem-structuring and problem-solving. His perspectives were particularly relevant for a situation that displayed and continues to display traits of high complexity and unpredictability.

Rajneesh's approach and collaboration helped us in developing the ePH as a complex adaptive system considering a variety of factors such as flexibility, adaptiveness, data security, social sensitivity and technical feasibility. Our collaboration integrated the essential technical elements of the ePH architecture within the systems thinking paradigm. The framework evolved as our research developed to finally propose a model that still remains visionary in the absence of a technical solution when Rajneesh revisited our previous research in his book that was published in 2019. In his book, he strengthens his argument to relate the ePH with e-participation, citizens' empowerment and e-governance.

It was a pleasure to work with Rajneesh and see his depth on fundamental understanding of systems thinking and his ability to apply this to real-world systems. Through the process, he kept in mind implementation challenges and capacity building of stakeholders as an essential element to ensure successful deployment of the ePH as a learning system.

In summary, it was a pleasure to collaborate with Rajneesh. Through this collaboration, I also gained a lot from his thought process and his angle on how to address the ePH problem holistically. In other words, without his contributions and initiative, this work wouldn't have seen the light of the day.

Sincerely,



Testimonial from (former) client and (later) manager

9/24/2020

Mali - Rajneesh.Chowdhury@hull.ac.uk

To Whom It May Concern

Thu 24/09/2020 09:44

To: Rajneesh Chowdhury <Rajneesh.Chowdhury@hull.ac.uk>;

To Whom It May Concern:

I was a Vice President at The PRACTICE, a reputation management firm, in 2008 when we mandated an organization design (OD) intervention for the firm. Rajneesh was a key member of the consulting team that led the design and implementation of this intervention. He applied a systemic approach in redesigning the organisation structure to sustain the rapid growth of the firm through collaborative working, along with supporting the leadership team in developing people skills. This resulted in a structure that was both effective in its outcome and efficient in process. Rajneesh was able to appreciate and take into consideration various factors in a holistic manner to inform his recommendations. He worked alongside our teams to co-lead implementation and to ensure that we built the required capabilities to sustain the change brought about in the intervention. Rajneesh stayed in touch with The PRACTICE and we called him back on several occasions to help us with understanding the change impact and help our HR to refine several frameworks for performance management and employee engagement. His works helped us see greater organizational collaboration, more effective business functioning and higher HR productivity.

Our continued partnership resulted in Rajneesh joining The PRACTICE full time to lead our Market Access function in 2014. I was CEO of the firm at that time. Rajneesh worked with us for over five years. During his tenure in the firm, Rajneesh worked on several initiatives in the realm of research and business advisory, India entry strategies for international clients, public affairs and stakeholder engagements. He brought in tremendous creativity and innovation, and led the thinking behind designing a one-of-its-kind Stakeholder Engagement Platform for client engagement. This platform opened up new business opportunities for the firm.

In 2014, Rajneesh led the strategy and design of a sustainable urbanisation project with a large client, the project later nominated for several awards. He brought in elements of critical systems thinking to create a framework that identified areas of sustainable improvements for the city of Bengaluru, involve communities with a study that reached out to 1500 citizens, and empower them by enabling change in their own lives through initiatives led by the citizens themselves. In all, 14 initiatives were implemented, handheld by experts that the programme brought together.

In all his projects, Rajneesh not only created the strategy, but also handheld team for implementation and sustenance of the projects. I admire and value his holistic thinking, flexibility, impact-drive approach, collaboration and adaptiveness, which have made him a trusted advisor to many.

Founder and Managing Partner
Gnothi Seauton

Testimonial from research collaborator

02/09/2020

Mail – Rajneesh.Chowdhury@hull.ac.uk

My collaboration with Rajneesh Chowdhury



Sat 26/09/2020 16:52

To: Rajneesh Chowdhury <Rajneesh.Chowdhury@hull.ac.uk>;

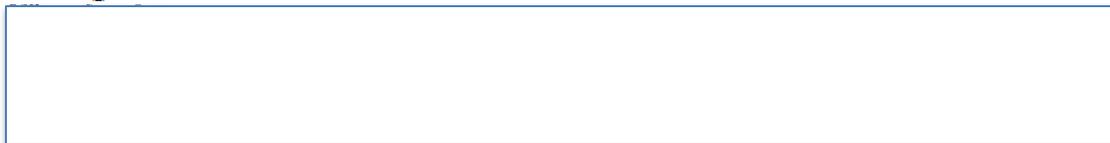
To Whom It May Concern,

In 2018, Rajneesh Chowdhury and I published the paper "Critical Systems Thinking Towards Enhancing Community Engagement in Micro-insurance" in the Global Journal of Flexible Systems Management. The work introduces a conceptual framework for the application of Critical Systems Thinking (CST) in community based micro-insurance schemes following the implementation model of my former organization the Micro Insurance Academy (MIA), New Delhi, India. The paper draws on experience from the implementation of community-based schemes that I have been responsible for when working for MIA from November 2010 to March 2017, the last two years as Director of the Climate Change Program. In 2016, Rajneesh provided pro-bono work with MIA, which presents the basis for the paper mentioned above.

The paper looks at the individual implementation phases of the MIA model and deliberates on how specific systems tools and methodologies can be of value for every phase. Rajneesh brought in two aspects in a seamless way to help create a strong community engagement model - holistic thinking and flexibility. The recommended systems model helped bring in the following elements in the MIA model - enhanced women's empowerment in decision making, more effective community engagement and opportunities for greater financial inclusion amongst rural communities in India.

While I brought in the domain-expertise on micro-insurance and on the community-centric approach in this field, Rajneesh brought in both, his theoretical knowledge on CST and application experience of CST in management consulting. Rajneesh was accommodative and adaptive to incorporate organizational needs and nuances. His chapter "Microinsurance and Community Engagement" in his recent 2019 book "Systems Thinking for Management Consultants" is an advancement of our previous paper where he incorporated inputs from MIA's Founding Chairman Dr Dror and myself. Rajneesh's research is one-of-its kind combining systems methodologies and micro-insurance approach: It highlights the benefits of a CST approach for successful community-based micro-insurance schemes or more generally for successful implementation of participatory approaches with marginalized communities at the center.

Kind regards,



Economic and Social Development, Digitalisation
Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH
Friedrich-Eberl-Allee 32+36
53113 Bonn
Deutschland/Germany

Testimonial from past manager

To:Rajneesh Chowdhury <Rajneesh.Chowdhury@hull.ac.uk>;

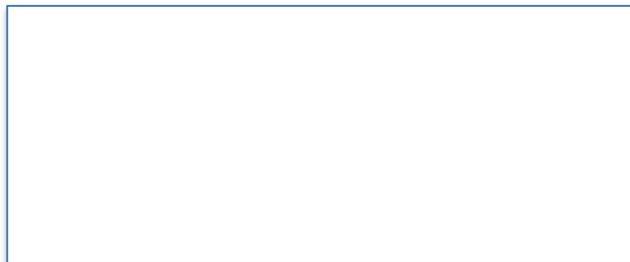
To whom it may concern

Rajneesh Chowdhury, as a project manager, reported to me on an organization transformation project for a very large steel manufacturing client in India during the year 2012-2013, for which I was the project director. Rajneesh and I were then affiliated with Aon Hewitt. Rajneesh demonstrated HR subject matter knowledge that was strengthened by his expertise in systems thinking. He added value to both the client and project enormously, both with the subject knowledge and with his commitment to excel at work.

Through the project lifetime, Rajneesh led his team with passion and represented a credible face for the company in front of the client. He was able to engage at various levels in the client - right from the C-suite to the on-ground executives. It was interesting to note how the initial client mandate of workforce downsizing took a shift through our project to one that would eventually focus on competencies, capability building and optimization. This was enabled with Rajneesh's ability to leverage traditional consulting frameworks with Requisite Organization theory within a critical mindset. Rajneesh's design took into consideration the parameters of people, process and technology within the strategic vision of the company. It was interesting to see how he amalgamated his thinking, coaching and analytical approach to help client visualize and solve the problems from a more longer-term perspective.

Client benefits observed included an accelerated speed of business, becoming a quality-focused and customer-responsive organization, and with a greater ownership in the team.

Rajneesh was able to display several qualities as project manager that steered the project to success. These included long-term thinking, a critical perspective, stakeholder empathy and client satisfaction, working under our internal company guidelines of financial prudence and ethics.



6.3. Outreach and recognitions

Webinars

[Talk on SAST methodology. SMART – Critical Systems Thinking and the Management of Complexity](#) module, University of Hull Business School (UK). 12-April-2021.

[Holistic Flexibility and Management Consulting](#). Podcast hosted by Conduita Knowledge Platform (moderated by Dr Melissa Finn, University of Waterloo, Canada). 23-April-2020.

[Systems Thinking: From Theory to Practice](#). Webinar hosted by *Full Spectrum Solutions and the International Society for the Systems Sciences*. (Moderated by Dr Deeanna Burleson, Full Spectrum Solutions, USA). 25-July-2019.

[Systems Thinking and Organizational Development](#). Webinar hosted by *Full Spectrum Solutions and the International Society for the Systems Sciences*. (Moderated by Dr Deeanna Burleson, Full Spectrum Solutions, USA). 1-December-2019.

[Critical Systems Thinking and Management Consulting](#). Webinar hosted by the *University of Hull Business School* (moderated by Dr Amanda Gregory, Centre for Systems Studies). 02-July-2020.

[Author Rajneesh Chowdhury shares tips on applying ‘systems thinking’ to reputation management](#). *PRMoment*, 02-August-2019.

Recommendation on Course reading

Author's work	Recommendation at
Chowdhury, R. (2011) Organizational Design and Firm-Wide Collaboration: Retrospective Appreciation of a Change-Led Consulting Intervention in India within a Systems Thinking Paradigm. <i>Systems Research and Behavioral Science</i> , Wiley, 29(4), 402–419.	IPSY 8214 Consulting for Organizational Change, Walden University, Minnesota (USA). https://academicguides.waldenu.edu/ipsy8214

Foreword for Chowdhury's (2019a) book by Emeritus Professor Michael C Jackson

Rajneesh Chowdhury's book *Systems Thinking for Management Consultants* is a significant addition to the literature on "systems thinking", particularly because the ideas it espouses are grounded on practical project work. They have emerged as a result of reflection upon 15 years of personal experience undertaking management research and consulting in India and the UK. These engagements have embraced a wide variety of organisations in private industry, public health, professional services and the charitable sector.

Through consideration of a number of extended case studies, Rajneesh arrives at the key concept of "holistic flexibility" which he sees as underpinning effective decision-making in today's complex world. Being "holistic" means developing a systems "state of mind" which enables the practitioner to chart interrelationships, recognise emergence and work with and challenge different mental models reflecting alternative boundary judgements. "Flexibility" in an intervention means staying nimble and adaptive in the face of constant change. A consultant must have the capacity to think flexibly; marshal a range of approaches and tools (e.g. the Viable System Model, Interactive Planning, Soft Systems Methodology); use them in a complementary fashion; and access a variety of resources in support of the intervention. This concept of holistic flexibility is discussed in the context of studies on social impact, organisation development and reputation management.

On the basis of the learning gained from employing holistic flexibility, he develops and advocates the notion of "responsible outcomes" for systems consultants. Such a professional standard requires consultants to ask questions about what are the right things to do in a set of circumstances, as well as what might make an organisation more efficient and effective. Focusing on responsible outcomes adds to the normal duties of consultants the need to pay attention to creating systemic benefits for all stakeholders, foster emancipation and seek sustainable solutions.

He learned his systems thinking at the Centre for Systems Studies, University of Hull, UK, of which I was Founding Director. I am happy to endorse this book as a fine example of the "critical systems thinking" (CST) approach developed at Hull. It asks why certain systems approaches work in some situations and not in others. It encourages the construction of multimethodologies capable of dealing with the complexity of modern-day problem situations. And it includes ethical considerations in contemplating the nature of the improvements it seeks to bring about. In putting CST to work in original ways, in the practical context of management consulting, the book provides an important example of the new wave of "critical systems practice" which is now coming to the fore.

Emeritus Professor Michael C Jackson OBE
May, 2019
Hull

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