‘Patient ping-pong’: Creating value through resource integration

Christian Gadolin[a*]
Erik Eriksson[b]
Thomas Andersson[a,b]
Andreas Hellström[b]

[a] School of Business, University of Skövde,

[b] Division of Service Management and Logistic, Chalmers University of Technology

*Corresponding author at University of Skövde, School of Business, P.O. Box 408, SE-541 28 Skövde, Sweden, Tel +46 500 448862, E-mail: christian.gadolin@his.se

Prepared for the 22nd IRSPM Conference

Abstract

Patients with severe symptoms without established cause are from many perspectives reason for concern. The ever increasing specialization of medicine and the predominant principle to organize the delivery of care through standardized pathways, often cause these patients to seek and attain care from multiple healthcare providers before correct diagnosis is provided. This ‘patient ping-pong’ is, of course, often triggering distress for the patient as well as delaying proper medical treatment and hence the probability of positive treatment outcomes. However, it is plausible to further assume that this mechanism may expedite negative effects at both the organizational level, meaning that it negatively affects the organization (e.g., increasing cost for care), as well as for the professional healthcare employees (e.g., feeling burdened by the inability to help the patient). In this paper a qualitative multiple case study of a Swedish pilot project, where staff and resources were gather ‘around’ patients with severe diffuse symptoms/cancer suspicion in order to facilitate swift diagnosis, is presented and discussed in order to explore the potential value such organizing may generate. The empirical data suggest that the resource integration studied, in these care ‘shops’, creates value for three separated yet entangled actors. The patients articulate satisfaction with the care and attention provided, the professionals experience an increased job satisfaction and attainment of professional skills, while the healthcare organizations reap benefits associated with a decreased necessity of activity coordination of distinct care providers. As such, this paper argue that futural

organizational design choices must not perceived the value chain as the only value configuration model viable in healthcare – if the sector is successfully going to tackle the challenge of an increased demand for high quality care combined with decreased availability of resources.

Keywords: value configuration, resource integration, healthcare

Introduction

The value chain (see Stabell & Fjeldstad, 1998) has become the predominant value configuration model in healthcare. The nomenclature of providing healthcare through *processes*, *patient pathways* and *patient flows* bear witness to the vast impact that New Public Management (NPM) has had on the healthcare sector ever since the end of the 1970s. No matter the label, what these terms denote is the sequential and standardized nature in which value is produced and refined in proceeding steps within the organization and eventually delivered to patients. It is apparent that NPM has resulted in that healthcare systems, throughout the industrialized parts of the world, have been proposed to learn from the private industrial sector in order to address issued related to ensuring quality and efficiency (IOM, 2001). This notion has resulted in that standardized processes for delivering care are commonly utilized in contemporary healthcare organizations (see Trädgård & Lindberg, 2002, Olsson *et al.* 2009; Hellström *et al*. 2010). While this linearity has proved efficient for certain types of healthcare services – when diagnosis and best practice are known – it has caused more harm than good for other services. As a result, the healthcare system is often described as being fragmentized while suffering from the inability to efficiently coordinate care providers' activities (Glouberman & Mintzberg, 2001a, 2001b; Ramanujam & Rousseau, 2006). Such inability becomes particular apparent when the patient suffers from conditions not fitting preconstructed patients pathways nor predefined disease treatment programs (SOU 2016:2). The increased specialization of the medical profession (Freidson, 2001) furthermore increase the difficulty of diagnosing and treating patients not fitting such standardized care programs as well as inhibiting the interaction required between healthcare professionals, invested in different medical specializations, in order to "see" the whole patient.

Taking the patients' perspective has been argued to be essential in order to facilitate necessitated integration and coordination of care activities for the aforementioned patient group (Christensen, 2009). The *value shop*, suggested by Stabell and Fjeldstad (1998), is a value

configuration model – or a conceptual construct for creating value – seemingly more fitting in order to put the patient's perspective focal and hence enabling value to be created through new ways of resource integration. The essential idea of value creation through the *value shop* mandates that "value is created by mobilizing resources and activities to resolve a particular customer problem (Stabell & Fjeldstad, 1998, p. 414). As such, it is distinct the 'value chain' value configuration model with is predisposition of conceptualizing value as being added in a predefined process of refinement. Albeit the 'value shop' is proposed by Stabell & Fjeldstad as being appropriate for problem-finding and problem-solving (e.g., providing care for patients where the disease is not yet defined nor proper treatment articulated), efforts to innovate and integrate its fundamental organizing principle are lacking in healthcare (cf. Hwang & Christensen, 2008). By integration of resources in time and space, the patient's problem may be more sufficiently dealt with. In order to understand the effects of the 'value shop' configuration model in healthcare, the aim of this paper is to *explore and discuss the potential value that may be created when the delivery of care is organized through means and methods similar to those proposed by the 'value shop' value configuration.*

Method

In order to fulfill the explorative aim of this paper, a qualitative research strategy was chosen as it enables such exploration while furthermore allowing for in-depth data, concerning the studied phenomenon, to be collected. As care provided by means and methods similar to those proposed to constitute the 'value shops' is being studied; the case study design was utilized as it further supports the researchers ability to gather rich and nuanced data hence facilitating the construction of sought in-depth analyses that come close to describing empirical reality. The studied case consisted of a Swedish pilot project – called *Diagnostiskt Centrum* - in which a dozen hospitals had moved away from working in a linear fashion with patients with severe diffuse symptoms/cancer suspicion to gathering staff and resources around patients. Previously, these patients had been sent back and forth between various standardized processes, something that had resulted in unnecessary suffering and prolonged time to diagnosis – the latter inadequate not least because of the correlation between early cancer diagnosis and survival rates. Due to local contextual factors the different hospitals had somewhat different routines and prerequisites both to instigate and operate the *Diagnostiskt Centrum*. Moreover, not all hospitals had had their *Diagnostiskt Centrum* up and running for the same period of time, as some started later than others. As a measure to minimize the contemplation of such local discrepancies in the data collection, and hence their impact in the forthcoming analyses, the

case study consisted of data collection on three hospitals. This approach aligns with what is described as a multiple case study (Ragina & Becker, 1992; Miles & Huberman, 1994) in order for value creating patterns, abilities, and functions attributed the organizing principle inherent the *Diagnostiskt Centrum* to become discernable and prominent in the collected data, more so than the potential influence of local idiosyncrasies. Data was collected through a document study, observations, and interviews. The document study consisted of reading and sorting policy documents in order to get a sense of the sought effects of the *Diagnostiskt Centrum* as well as achieving a contextual understanding enabling more informed observations and interviews to be undertaken. The observations took place at national workshops, where staff from all the participating hospital were present in order to share sapience, as well as local work meetings, where conversations and interactions were mainly centered on issues related to daily operations at the *Diagnostiskt Centrum*. The interviewees were physicians, nurses, as well as managers, who were directly involved in the daily operations (i.e., providing care) in the *Diagnostiskt Centrum* or who were managerially responsible for them. The analyses began with sorting the data according to the value *Diagnostiskt Centrum* was proposed to enable in relation to three separate yet entangled actors: the organization, the professionals, and the patient. Following this sorting, the data was reduced in order to present condensed, tangible, and comprehensible findings in relation to potential value that the *Diagnostiskt Centrum*, and hence the value shop value configuration, may facilitate in healthcare. The quotes illustrated in the findings section are meant to represent the interpretations undertaken throughout this process.

Setting

The findings below will present the value that was found to be created through organizing the care provided by the means of the *Diagnostiskt Centrum* for three tangible yet separate actors. As aforementioned, the *Diagnostiskt Centrum* is a pilot project adopted by a dozen Swedish hospitals. The idea of the *Diagnostiskt Centrum* originates from the dissatisfaction that patients suffering from cancer often do not get diagnosed timely. Timely diagnoses are made difficult by the fact that cancer often manifest through multiple, various, and indistinct, symptoms – although such symptoms often are severe. As such, it is common for the general practitioner – whom generally is the first embodiment of the healthcare system that cancer patients either seek out or get in contact with – to suspect that other more common diseases or conditions are what cause the symptoms exhibited by the patient. Due to this fact, the patient is often the subject of numerous medical investigations and multiple remittances to distinct sub-specialties of the medical profession, aiming to probe for more common causes known to manifest through the

symptoms exhibited, before suspicion that the patient may suffers from cancer is raised. Timely diagnosis of cancer is vital as it enables medical treatment to be started earlier in the course of the disease hence increasing the chances of survival for the patient. Furthermore, timely diagnosis may decrease the mental distress often exhibited by patients who suffers from severe symptoms without established cause(s). Therefore, in order the minimize the 'patient ping-pong' that cancer patients often are subjected to, the overarching aim of the *Diagnostiskt Centrum* is to substantially reduce the amount if times it takes for patients who show serious symptoms to get properly diagnosed; whether it being that cancer is established, that some other disease or condition is recognized as the cause, or ascertaining that the patient does not suffer from any medical condition that may be attributed the symptoms shown.

In order to achieve the aforementioned aim, the medical staff of the *Diagnostiskt Centrum,* namely nurses and physicians, are appointed with the task of diagnosing patients with severe symptoms/cancer suspicious within 18 days. This narrow time frame reflects stipulations given in recently established Swedish national guidelines concerning how medical investigation of patients with severe unspecific symptoms ought to be undertaken. Patients are most often remitted to the *Diagnostiskt Centrum* by their general practitioner situated at the district healthcare center, although hospitals within the county or other specialist may also remit patients to the *Diagnostiskt Centrum* if they see fit. It is always the physician who is responsible for the patient who holds discretionary power to decide if the patients whether or not should be remitted to the *Diagnostiskt Centrum*. For guidance in this decision, however, the aforementioned Swedish national guideline provides some assistance by listing symptoms, which have manifested recently and without plausible cause, that may indicate that the patient qualify for remittance to the *Diagnostiskt Centrum*. If the patient is remitted to the *Diagnostiskt Centrum* it is up to the responsible physicians at the specific center to make the decision if the patient is eligible for admittance.

If the patient being remitted to the *Diagnostiskt Centrum* is admitted, first patient contact is taken by one of the nurses assigned to the center. This contact often takes place within 1-2 days after the patient's remittance has been accepted by the responsible physician. The intent is to book the patient's first visit to the center as soon as possible. As such, the nurse call the patient rather relying on postal communication which is commonplace in healthcare. As a result, it is common that the patient's first visit to the *Diagnostiskt Centrum* takes place quickly – even as soon as the day after first contact have been made. During the first visit, the patient's first

meeting is with a nurse. The intent of this first meeting is that the nurse explains the procedure that is going to take place as well as its rationale in detail to the patient. Although it is common for more than one nurse to be allocated to the *Diagnostiskt Centrum*, it is sought after by the staff that the same nurse, who had the first contact with the patient, also handles further communication and contact with the patient. A desired goal, that more often than not is achieved. After the nurse have finished the initial meeting with the patient, the nurse accompanies the patient to an x-ray examination. As the *Diagnostiskt Centrum* is situated within a hospital, access to this examination is easily acquired. When the patient had had the x-ray examination, it is time for the first examination of the patient by the physician responsible at the *Diagnostiskt Centrum*. As with the nurses, at some of the *Diagnostiskt Centrum* there are more than just one associated physician. Yet, it is common practice that just one physicians at the time is medical responsible at the *Diagnostiskt Centrum*. This means that although many physicians may be associated with the *Diagnostiskt Centrum*, only one physicians at the time is actively involved in the diagnoses of currently enrolled patients.

The first examination by the physician of the patient is very thorough, and last up to 90 minutes. The intent with this examination is to find if there are any yet undiscovered physical symptoms shown by the patient that may further assist the physician in his/her pursuit to establish the current disease or condition that the patient may be suffering from. It sought after by the physician that the results of the x-ray examination are already available after the physical examination is concluded. If they are, the physicians, hopefully, has the necessary medical data to take the next appropriate step in the medical investigation. As the goal with the *Diagnostiskt Centrum* is to assure timely diagnosis, the physician do not have strict resource limitations in regards to the medical test that he/she may deem necessary to undertake in order for the medical investigation to advance. This unrestricted access to medical tests is contrary to normal care procedures, where only medical tests for the most likely diseases and conditions causing the severe symptoms may be ordered. As the *Diagnostiskt Centrum* only has a few patients registered at the same time, the physician is able to quickly follow up the medical test result in order to further advance the medical investigation. In addition to the resources that the intense time allocation provided by the responsible physician and the ability to order a multitude of medical tests constitute, there are other resources available at the *Diagnostiskt Centrum* further increasing the likelihood that medical diagnosis may be given within the stipulated time frame. The medical staff at the *Diagnostiskt Centrum* have established connections with other departments and clinics within the hospital. These connections allow the patients of the

Diagnostiskt Centrum to either skip the ordinary waiting list of that department/clinic or that they are given priority when regular scheduled patients cancel their appointments. In addition, networks with other hospitals and medical specialists have enabled similar arrangements to be established with other care provider; further enabling the patients of the *Diagnostiskt Centrum* to attain necessary specialized care and guidance - even if it is unavailable at the local hospital. These conditions, in terms of the aforementioned resources gathered 'around' the patient, often enables the medical staff of the *Diagnostiskt Centrum* to establish the cause(s) of the patient's severe symptoms within the stipulated time frame. As such, due to the intense problem solving activities undertaken at the *Diagnostiskt Centrum* enabled by an intense mobilization and allocation of resources rarely taking place within healthcare: the *Diagnostiskt Centrum* is argued to constitute an empirical case were care is provided through means and methods similar to those proposed by the 'value shop' value configuration.

Findings

As noted, the value that is deemed to be enabled and facilitate by the *Diagnostiskt Centrum* will be separated into three distinct yet entangled and interrelated actors: the organizations, the professionals, and the patients. Although being an academic construct, it is chosen the as the mean of presenting the empirical data in order to achieve clarity and presentability despite the tradeoff of the ability to capture all of the complexity of the empirical data.

Organizational value

As noted, the medical staff at the *Diagnostisk centrum* are often able to provide timely diagnosis of patients with severe unspecific symptoms. The physicians at the *Diagnostisk centrum* testify that the patient group who is remitted to the center mostly like would have had consumed much more accumulated care through multiple care providers if the center was not operative. The physicians argue from experience that, as these patients suffer from severe symptoms without established causes(s) their concern for their own well-being often instigate that they on their own accord seek out specialist care. In a way, this behavior by the patients is a desperate attempt to handle the current fragmentized healthcare system were lead times and queues are extensive when patients are being shuffled between pathways. The monetary savings, for the healthcare systems at large, derived from that the operation of the *Diagnositk centrum* impedes such "care seeking frenzy" by patients are hard to distinguish, due to the fact that it is troublesome to find a viable patient group for comparative purposes. However, all members of the medical staff, who were interview for this study, in unison agree that, despite it being costly due to the

intensive and vast resource allocation, the *Diagnostiskt centrum* enables aggregated monetary savings at the system level of analysis. Albeit this value creation, in terms of monetary saving, is first and foremost discernable at the systems level – in the long rung it enables further resources to be allotted to various healthcare organizations, hence it is being denoted to create organizational value.

Another value that the *Diagnostiskt centrum* creates at the organizational level relates to the decreased volume and coordination of care that the district care centers need to provide. The many physicians staffing the *Diagnostiskt centrum* who had held previous, or current, positions at such district care centers all provided the same narrative: the possibility to remit appropriate patients to the *Diagnostiskt centrum* entails that the medical staff are able to focus their attention and efforts on diseases and conditions more appropriately treated at the district care centers (i.e., easily diagnosable diseases and conditions able to be treated utilizing relatively simple interventions). In addition, reductions of the centers' staff's mental load and workload were espoused to be evident due to the newfound ability to remit appropriate patients to the *Diagnostiskt centrum*. In other words, the *Diagnostiskt centrum* does not only allow more appropriate disease and conditions to be treated at the district care centers – it enables the medical staff to tackle everyday work more vigorously. As such, the *Diagnostiskt centrum* creates organizational value for the district care centers as the potential of their medical staff to execute relevant work is increased due to the prospect of remitting appropriate patient.

Professional value

The values created by the *Diagnostiskt centrum* for the medical staff working there were multiple. The prime value, that all of the professional employees expressed was created, came to center around their ability to retreat to their "professional core". By the physicians this was often expressed in wording similar to that their professional role changed into what it "ought to be". This core encompassed the medical expertise only attainable by a physician, due to more extensive as well as the content of medical studies, but also the notion that this medical expertise was able to be exercised and that it was pivotal for the successful diagnosis of the patient. A physician, who had substantial work experience from district care centers, expressed the characteristic of working as a physician at the *Diagnostiskt centrum*:

> Most of the things I do at the district care center, some other profession [(e.g., a nurse]) could do, but the things I do at the *Diagnostiskt centrum* truly requires a

> physician. When working at the *Diagnostiskt centrum* I must do what I am trained for – I must take on the role of a physician. If I don't, we won't succeed in our efforts to timely diagnose the patient.

Stemming from the necessity of the physician to go "back to the core", another professional value is created: the value of a broader and more in-depth medical knowledge and expertise. This value is created by the perceived necessity to acquire new, as well as refreshing old, knowledge in order to possess the right "tools" to make timely diagnosis possible – as the patients may suffer from anything between "heaven and earth". The acquisition of professional knowledge is done by the physicians through studies of old as well new medical texts, driven by the aforementioned requirement to be *à jour*, but also by the need to possess the appropriate nomenclature when communicating with the variety of medical specialist with whom the physician come into contact with throughout the diagnosing process. As aforementioned, the responsible physicians at the *Diagnostiskt centrum* often refer to distinct medical expertise in order to acquire their judgments in relation to potential diagnosis. In order for such referral to be performed smoothly, the responsible physician must have a fairly comprehensible understanding of the expertise in order to know what medical investigations to ask for as well in order to interpret the results of it; in order to evaluate the impact it may have on the on-going diagnosis of the patient. In summary, the professional value created for the respective responsible physician at the *Diagnostiskt centrum* is instigated by the necessity of timely diagnosis while enabled and preconditioned by the rare opportunity not to be bound by resource limitations.

Similarly to the physicians, the nurses at the respective *Diagnostiskt centrum* express that they were able to go "back to the core" of their profession. One of the nurses illustrate this notion by stating that:

> For me it feels satisfactory to give the patient comfort. My work here is so much more about caring, comforting, and to palliate than what is custom. Despite the fact that the patients at the *Diagnostiskt centrum* often are very ill, with poor prognosed outcomes, they are grateful and content for the care we are able to provide. I feel that our work here really makes a difference for them.

The nurses perceived that this approach was facilitated by the fact that they were able to "follow" the patients; from the moment that first contact was made until the diagnosis, or lack thereof, was asserted. As this process is not intended to take more than 18 days, the intense contact that takes places between the patient and (often the same) nurse enables a more intimate, than what is commonly allowed, bound to be formed between them. In summary, the *Diagnostiskt centrum* allows both physicians and nurses to get back to what they perceive to be their "professional core" - although manifested differently due to their respective profession's inherent idiosyncratic foundation (cf. Glouberman & Mintzberg, 2001a).

Patient value

The most rudimentary value, which is created by the *Diagnostiskt centrum* for the patient, stems from the fact that the ideal of a diagnosis not taking more than 18 days is often met. This is a remarkable improvement juxtaposed routine procedure were the patient with severe diffuse symptoms tend to be sent around between different hospitals and specialist clinics.

> We used to do 'patient ping-pong'. Patients were sent back and forth between different clinics, without anyone having an overall responsibility for them. - Physician

As such, the patient no longer have to spend time and exercise effort in order to meet and coordinate multiple distinct care providers. The *Diagnostiskt centrum* takes on full responsibility for the medical investigation and the plausible coordination of clinics/specialists required to sustain it. From this perspective it is fully reasonable that patient questionnaires, disturbed by the *Diagnostiskt centrum*, indicate a high level of satisfaction. From another perspective, however, it is not.

As aforementioned, the outcomes of many of the established diagnoses for patients remitted to the *Diagnostiskt centrum* are sever – event fatal. Despite this fact, the patients perceive that they are satisfied with the care provided at the *Diagnostiskt centrum*. This may seem counterintuitive, as a care provider being unable to attain the patient's health seemingly would have difficulties enjoy having satisfied patients. However, it seems that the patients perceive that the value created for them as being a more intricate matter than what is able to be expressed utilizing such simple a correlation. The medical staff espouse, from their own perceptions as well as grounded in patient questionnaires, that the patients feel "seen" and truly cared for. The

patients perceive that the medical staff at the *Diagnostiskt centrum* have done 'everything' in order to deliver the best care possible. Hence, despite being brought a negative outcome forecast, the patients are satisfied and put at ease by the whole care procedure. As such, value is created for the patients – despite the fact that the medical staff of *Diagnostiskt centrum* are unable to cure them – through their positive perceptions of the care procedure as a whole.

Concluding discussion

What is to be denoted value, and value creating efforts, in relation to the delivery of public services is a delicate inquire. Following Stabell & Fjekdstad's (1998) reasoning concerning the three value configurations models of the value chain, the value shop, and the value network it appears that value is created – in some way, shape, or form – when the company producing the service or product are able to prosper. As such, there seems to be an outspoken causality between created value, regardless of the value configuration model applied, and the success of the producing company. This line of reasoning – may – hold when applied to the private sector, however, when it comes to publicly founded and consumed services this causality needs to be nuanced. Omitting nuances, it could be deemed viable to argue that value ought to be strictly understood through solely incorporating monetary measurement – a conceptualizing of public service most of us would not be comfortable with.

In this paper, we have argued that the *Diagnostiskt centrum* probably creates value in monetary terms, as it is likely that the aggregated consumption of care decreases as a result of it. Moreover, and more importantly, we have shown that the *Diagnostiskt centrum* enables a multitude of other values to be create for the healthcare organizations involved in the delivery of care, the professionals doing the work, as well as for the patients remitted to and diagnosed at the *Diagnostiskt centrum*. The dangers and pitfalls entailing the perception of "one-size-fits-all" in public sector management have multiple times been skillfully argued and vividly illustrated (cf. Ohemeng, 2010). We must now realize – with the same vigor – that the reasoning analogously is viable when evaluating the suitable value configuration model, and the dimensions of value it facilitates to create when, utilized in distinct healthcare provision situations. If not, we will fail to comprehend dimensions of value unable to be expressed solely through monetary measurements and the 'patient ping-pong' may be allowed to continue - as long as it does not "cost" too much that is.

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