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Identifying Layers of Intellectual Capital by Analyzing Unique Contexts

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Abstract: This research analyzed the Intellectual Capital (IC) in churches, noting the contextually specific elements tied to unique definitions of success. It aimed to open up to questioning the traditional classifications of IC, while considering the importance of context. American churches were chosen to uncover unique layers and attributes of IC, as they represent a very different organization from those typically studied in IC research. The leadership teams of four churches engaged in 90-minute focus groups, where they discussed success, assets, liabilities, and attempts to leverage value from assets. By approaching it qualitatively, and without prompting participants about the traditional definitions of IC, a more valid and natural discussion revealed unique assets not found in other contexts. Analysis validated the traditional three-part classification of IC into human, relational, and structural assets, yet it showed unique subcategories not captured by previous research. It outlined unique relationships among asset classifications, and revealed areas of missed opportunity and leakage of assets. This adds to the growing list of possible specific IC assets that can be considered by other organizations, as well as ways to leverage these assets. Analysis also found that assets can easily become liabilities if not properly managed and maintained. This approach can be used in future research to uncover additional layers of IC that can be used by other organizations not previously aware of the existence or potential value of such assets.

Keywords: Intellectual Capital, Churches, Assets and Liabilities, Organizational Culture, Value Creation

1. Introduction

Research on Intellectual Capital (IC) suggests that intangible assets are important elements of value for any organization, and they tend to be categorized according to human, structural, and relational elements. Yet, because research has focused on a rather homogenous set of organizations, these categorizations are in danger of becoming stale. And due to the contextual nature of IC, the attempts to fit an organization's assets into existing categories—rather than conduct an inductive analysis in their unique context—threatens the validity of the organization's understanding of its assets.

Thus, the aim of the current research is to open up to questioning these IC classifications in a less prompted discussion of intangible assets with leaders in a unique context. In other words, by not overtly directing participants to the three categories traditionally used, it is possible to uncover a more valid discussion of an organization's intangible assets that is not restricted by previous assumptions. Also, by focusing on a unique context—churches—the research can reveal more about the contextual nature of IC, adding to existing research on various types of organizations and potentially revealing new assets that could be of value to other organizations. The goal is to validate the comprehensiveness of traditional IC models and provide additional contextual and specific detail to models that have remained too abstract to be of much practical help in the management of IC (Kaufmann and Schneider, 2004). This additional detail comes by uncovering new specific assets, the connection of IC to organizational strategy, the processes put in place to extract value from these assets, and potential liabilities in these assets.

The multitude of definitions and classifications of IC have been noted as a problem for IC research (Kaufman & Schneider, 2004; Diefenbach, 2006; Choong, 2008). Diefenbach (2006) argued, for instance, that “the provision of several examples—as interesting and helpful this might be for gaining (new) insights—is not sufficient for a systematic investigation into the problem of identification, management and development of intangible resources” (p. 407). Yet, the current research argues that this ever-expanding list of IC assets is a product of their very complexity. And if organizations can themselves identify these various examples—namely the ones that matter to them—as well as liabilities associated with them, this should prove useful for contextually based identification, management, and development. Rather than suggest a new universal classification for IC assets, the current research seeks to extend the list of IC assets that can be used by other organizations to achieve strategic objectives. Context is important to the understanding of IC; thus, the current research explores the differences in IC based on context.

Although these came out of unique contexts, they may represent assets that other organizations have but have not known about and—thus—not attempted to extract and use. Some organizations may actually have some of these layers of capital, but professional and cultural constraints keep them hidden. Looking for ways to cross pollinate IC research from various unique contexts ensures that models of IC do not become stale and self-confirming. This approach can lead to the development of subtypes within the three primary categories of IC, as well as completely new categories.

The following section will outline the literature related to these areas. After first defining IC and the models widely used to classify it, a discussion of the philosophical assumptions of the current research will highlight the need to consider context. Next, the various elements of IC important to the current study are outlined. This includes an outline of how an organization identifies IC assets that are strategically important, the processes put in place to leverage these assets, and liabilities. The review of the literature includes an overview of the IC found in vastly different contexts. This will be used to identify the elements of the church context that mark it as unique and add to what is known about IC.

2. Literature Review

Intellectual Capital (IC) emerged as a response to the recognition that differences existed between an organization's accounting value—its financial and physical value—and its market value (Stewart, 1997; Marr, Schiuma, & Neely, 2002). Thus, it was possible to calculate IC as the difference between these two values. However, this is a "questionable" way to view IC, as "IC does not comprise the entire difference between market and book values" (Dumay, 2009, p. 192). Therefore, a more robust definition of IC is needed. This definition begins with Stewart (1997), who defined IC as "the intellectual material—knowledge, information, intellectual property, experience—that can be put to use to create wealth. It is collective brainpower" (p. 12). Yet, wealth cannot be the only end to this intellectual material. It also includes the components of a) value, b) strategy, and c) action.

Several models of IC assets have been proposed. See Andriessen (2004a) and Choong (2008) for rather comprehensive reviews of IC assets noted in the literature. Included in these asset categorizations are market and infrastructure (Brooking, 2010); employee competence and structure (Sveiby, 1997); organizational and human (Guthrie & Petty, 2000); innovation expenditures (Bounfour, 2003); and process and technology for knowledge codification (Mouritsen et al., 2002, p. 21). Yet, Marr and Adams (2004) suggest that they all tend to converge toward a "three-pronged overall framework" consisting of human, relational, and structural capital (p. 22).

- *Human Capital* is the "lifeblood of the intellectual capital concept" (Marti, 2001, p. 155). It includes the skills, creativity, leadership, and general knowledge and problem-solving capabilities of an organization's employees.
- *Relational capital* includes the intangible element of interaction, and encompasses an organization's external relationship with its customers and its internal social networks (Marr, 2008; Marti, 2001). It encompasses relationships with *key stakeholders* (Marr and Adams, 2004).
- *Structural capital* establishes important norms and ways of behaving (Marr, 2008). It includes culture, practices and routines, and intellectual property (Marr, 2008). It provides the common ground for individuals within an organization to interpret events, the tacit or explicit ways of operating that can be valuable to the organization, and the intellectual property over which an organization has legal rights (Marr, 2008).

There is impetus for moving beyond this, however, to account for contextual differences in IC. Andreou, Green, and Stankosky (2007) looked specifically in high-tech firms and found subtleties in the IC model that allowed for additions to be made, most specifically in terms of how employees relate to Intangible Assets. Ramírez and Gordillo (2014) looked at Spanish universities and proposed an expanded model of 42 intangible elements that were "of relevance to university stakeholders" (p. 184).

The next section will first outline the philosophical position of the methodology. Next, it will outline, in turn, issues of value, strategy, and action that make-up the methodology. This includes research questions that make up the methodology and drove the case study.

2.1 Philosophical Stance

The philosophical stance of the current research must be outlined, as such a stance is “a critical success factor for research and management” (Venzin et al., 1998, p. 37). The current research is not an attempt to develop a better, more encompassing classification scheme for IC assets. Such an attempt assumes that one best picture of IC exists, and the goal of research is to identify more elements of this best picture. As this picture comes more into focus, organizations can engage in a simple matching game whereby their existing resources are mapped onto this best picture. This represents a *cognitivist* approach, whereby the world is predefined and, therefore, fixed (Venzin et al., 1998). An accurate picture—or knowledge—reflecting the absolute and universal truth of this world is achieved through the accumulation of external and objective data and information. Because the world is pre-defined and static, universal rules exist for how organizations can adapt to it as they place their increasingly accurate explicit knowledge of it into manuals, books, databases, etc. (Venzin et al., 1998).

Instead, the goal of the current research is to help organizations uncover IC assets that are unique to them. It uncovers how organizations themselves build their picture of the world, rather than attempting to fit them into an existing picture. This represents an *autopoietic* approach, whereby the world is not pre-defined. Knowledge does not build up as organizations accumulate more information and data about an absolute truth, but individuals within organizations subjectively build their own worlds, as “each individual has to create his or her own knowledge through experience” (Venzin et al., 1998, p. 42). The world is thus socially constructed as individuals with individual knowledge interact. This explains the vast variety of IC assets and differences in approach outlined in the literature, without suggesting the supremacy of any one.

Kaufman and Schneider (2004) argued that such an approach lacks practicality, as it fails to “inform the user as to which special components of a firm’s intangibles are important to its strategy” (p. 379). Yet, the current research suggests that a qualitative approach is precisely what allows for the uncovering of these special elements in a way more directly tied to an organization’s unique strategy. Choong (2008) similarly criticized qualitative investigations of IC, suggesting that they “fail to offer any objective measurement usefulness” (p. 632). However, the current approach follows the line of interpretivist research, “grounded in people’s self-understandings,” which suggests that “all observation is theory- and value-laden and . . . investigation of the social world is not, and cannot be, the pursuit of detached objective truth” (Leitch, Hill & Harrison, 2010, p. 69). Unique assets not captured by existing frameworks may be overlooked without an inductive methodology for uncovering the assets and liabilities in specific organizations.

2.2 What Knowledge and What Value?

Not all brainpower in an organization is considered valuable capital. Organizations have vast knowledge resources, but IC includes only that knowledge which provides value. It is “knowledge . . . that produce or create value” (Marti, 2007, p. 245). It is “knowledge that can be converted into value” (Edvinsson & Sullivan, 1996, p. 358). IC includes “all non-tangible resources that . . . contribute to the delivery of the organization’s value proposition” (Marr, 2008, p. 5).

Yet, what is the nature of this *value*? Although value may be attached to financial returns, as noted previously by Stewart (1997), it is much more than this: “A value reflects the concept an individual or group has regarding what is desired” (Andriessen, 2004a, p. 237). The value of IC is tied to organizational strategy, i.e. how does an organization define success? This link is important: “Strategy development based on the company’s valuable knowledge is likely to lead to sustainable competitive advantage” (Venzin et al., 1998, p. 31). A successful organization “recognize[s] that intellectual capital is a major source of value and leverage” (Edvinsson & Sullivan, 1996).

The questions of what knowledge is valuable and what that value constitutes is likely different in nonprofit organizations (NPOs) like churches than in for-profit businesses. The goals of NPOs is the providing of services rather than profit. These groups have “an embedded social purpose” (Austin, Stevenson, and Wei-Skillern, 2006, p. 1). These organizations also face unique challenges, highlighted by Prugsamatz (2010) as including declining trust from the public (Herzlinger, 1996) and for-profit organizations claiming part of the non-profit space (Kong, 2014).

Thus, IC is valuable to churches to the extent that it contributes to success as they define it. To that end, the study asks the following:

RQ1: What are the value propositions and strategic goals of churches?

RQ2: What IC resources do churches consider valuable for achievement of their strategic goals?

2.3 What Actions and What Liabilities?

To say that IC is knowledge that *can* increase value is not to say it does so automatically. Processes must be put in place to leverage value. Halawi, Aronson, and McCarthy (2005) reiterated that what organizations *do* with knowledge—how they process it—is part of their success. Edvinsson and Sullivan (1996) argued that “the existence of a stock of knowledge (intellectual capital) is not enough to account for the high value the marketplace puts on many knowledge companies. Indeed, it is the ability of companies to leverage their intellectual capital that is perhaps a greater key to profitability” (p. 357).

Without a clear understanding of such leveraging, organizations are left merely taking stock of where resources are. Marzo and Scarpino (2016) argued that the simple categorization of many IC efforts leads to a static, rather than dynamic, notion of IC that does not account for how organizations leverage these assets. Dumay (2009) also argued that existing IC frameworks re-create static representations of IC without addressing the praxis of IC (p. 194). It is important to look at “how [IC] actually works and evolves in practice” (Schaper, 2016, p. 54). Caddy (2000) noted that it is this very move from potential value to measurable value that turns *intellectual* assets into *intangible* assets (p. 131).

To say that knowledge requires action to be valuable is to suggest that a lack of action invites lost value. In this way, organizations can look at liabilities in their IC assets, i.e. areas of lost opportunity and leakage of assets. Rather than assume that all the IC discussed in an organization is fully realized, Caddy (2000) asked, “What happens if this belief [of conversion of IC into revenue] is not realized either in terms of something less than the full potential of the intellectual capital, or in the worst case not being realized at all?” (p. 133).

De Santis and Guiliani (2013) provided a comprehensive review of research into liabilities, concluding that research into liabilities is “very scarce and highly fragmented” (p. 222). Some authors have pushed against what they see as an overly optimistic view of IC, analyzing the potential for IC to destroy value rather than create it (Dumay, 2013; Garcia-Parra et al., 2009). Dumay (2013) noted that many of these positive effects are unproven. IC can *deteriorate* (Harvey and Lusch, 1999), and emotional liabilities can *deactivate* it (Abeysekera, 2004). Garcia-Parra et al. (2009) looked at various intangible obligations an organization has for its employees, e.g. job security, recognition, and acquiring knowledge. The inability of an organization to fulfill these obligations “may induce changes in employees’ work attitudes, which in turn reduce their contribution to organisational processes and activities” (p. 826). IC is, thereby, depreciated. Managers must “monitor and manage intellectual liabilities in order to control the possible negative effects generated by IC” (Dumay, 2013, p. 7). Thus, it is important to consider the ways in which these assets may be harmful, not simply assuming value creation.

RQ3: How are churches attempting to leverage IC to achieve strategic value

RQ4: What liabilities exist in a church’s IC assets?

2.4 Context

Context is important to consider in IC, which is one of the reasons for opening up the three existing categories to discover nuances and potentially new categories in different contexts. Kianto, Humelinna-Laukkanen and Ritala (2010) noted that certain elements of IC should be more important for different organizations. They found, for instance, that human capital was more important to service firms than those firms that provide products. An exhaustive literature review of the various contexts analyzed by IC researchers is beyond the scope of the current research. However, several are included to highlight the potential differences in the church context.

Key IC assets in an Italian automobile component manufacturing firm included knowledge about procedures, relationships with outsourcers, and codification and formalization of knowledge (Marzo & Scarpino, 2016). Development of IC theory in nursing suggested that key assets include knowledge and skills gained through

formal education, and possession and use of best practices and protocols (Covell, 2008). Key assets in a public university hospital included the number of professionals and researchers employed, and the development of agreements with local providers about how to provide health care services for the area (Vagnoni and Oppi, 2015). Key assets of banking institutions in Luxembourg and Belgium included the use of information systems related to automation, creativity for innovation, and frequent interaction with customers (Mention & Bontis, 2013). Key assets of insurance firms in Iran included formal education, diversity of product portfolio, and market share (Zakery & Afrazeh, 2015). Key assets of global pharmaceutical companies include patents, databases, and technology; relational capital in reference to customers is briefly noted in the balance sheets of these companies, and human capital is missing entirely (Boekestein, 2006).

2.5 The Problem

The previous section outlined the pertinent literature on IC. This included its definition and classification into human, structural, and relational assets. More specifically, the current research is concerned with what IC assets are considered strategically important, realizing that not all assets can be prioritized and leveraged. This requires a deep understanding of an organization's definition of success. In addition, the current research is concerned with the actions taken to leverage these assets in a way that they can contribute to this definition of success. This includes potential liabilities that must also be considered. The autopoietic stance of the researcher paves the way for an inductive look at elements of IC that are unique to specific contexts. The variety of organizations previously referenced outline the importance of context. This paves the way for addressing the aim of the current research to consider the potential of new categories of IC and the relationship of these to context.

3. The Methodology

The current research was approached within an interpretivist framework, which matches the autopoietic assumptions noted previously. This approach rejects assumptions of objectivity and generalization in positivist or post-positivist research (Byrne, 2001). It also allows for a richer analysis of subtlety, where the most important elements of the findings are expected to come from: "The interpretive paradigm is one that thrives upon subtlety, it is one where hidden and important meaning is buried" (Black, 2006, p. 320). More specifically, this involved a multi-site case study and data collected through focus groups (FG). Case studies provide "in-depth analysis of a case" (Creswell, 2014, p. 14). Although they are limited in their generalizability, it is still possible to look at the implications the findings of a particular case study have for other contexts: "The process . . . is transferable even when the [case] may be different in content and context" (Simons, 2009, p. 166). FGs allow the leaders of an organization to analyze strategy and assets together, guarding against standpoint epistemology—the assumption that, when isolated individuals say similar things, they necessarily agree with one another (Kamberelis & Dimitriadis, 2011). Instead, participants can correct and challenge one another to produce more valid data.

This approach increases rigor in what have traditionally been practitioner-based models of IC (Andriessen, 2004b). The empirical framework of the study opens the concept up to nuance and validation from rigorous qualitative research methods. Thus, following Andriessen (2004b), it is more explanatory science than design science, as it seeks—not to intervene for improvement—but to identify potential additions to the IC model from churches that might be predictors of success in other organizations.

While Choong (2008) attempted to reclassify IC using a review of existing literature, the current study seeks to reclassify IC through qualitative data collection in a specific context. It is an inductive approach fit within the loose framework of existing models. This follows the decision by Habersam and Piber (2003) to "explore the IC in hospitals" using qualitative measures rather than attempt a "comprehensive understanding of IC" (pp. 757-758). They similarly used an existing taxonomy as a "heuristic" that "may also be subject to development itself" (p. 758).

3.1 Process

An email was sent to pastors in the area to inform them of the study and inquire about potential participation. Face-to-face meetings were held with the pastors of four churches who responded to this initial email. Each pastor was asked to gather a group of 6-8 individuals considered to be part of the *Leadership Team* to gather for a 90-minute focus group. Involving church leadership answers the call from Steenkamp and Kashyap (2010) for more contributions from management about the perceptions of IC. Brooking (2010) also found that

management estimates tend to be just as accurate as other forms of assessment. A total of 28 individuals from these four churches participated in the FG. They represented an equal selection of male and female participants, ranging in age from 20s to 70s. They were predominately Caucasian, representing the make-up of their respective churches. Three Mainline Protestant denominations were represented, including the Evangelical Lutheran Church in America (ELCA), United Church of Christ (UCC), and United Methodist Church (UMC). This is a sufficient sample size given that the coding categories remain relatively consistent across each church, suggesting that additional churches were not adding significant themes to the research, i.e. “no new information [was] obtained” (Morse, 1995, 147).

3.2 Focus Groups

During the focus group, participants were asked to outline what success meant for the church, i.e. what were their objectives? This provided insight into RQ1 about value propositions and strategic goals. They were then asked to imagine that a construction company had accidentally demolished their building, and they had lost all financial assets in a bad investment. With this projective in mind, they were asked if and how they would be able to still achieve success. This provided unprompted insight into what participants viewed as their essential intangible assets as they related to their specific objectives. This provided insight into RQ2 about strategically important IC, and also provided the richest data in terms of moving beyond the traditional categorizations of IC. This included, following Brooking’s (2010) methodology, a discussion of the assets they would like to have that would help them more easily achieve their goals, i.e. “desirable” assets (p. 218).

After fleshing out these areas of IC assets specifically related to success for their church, participants were asked to reflect on the extent to which they had each asset, and the extent to which they had been able to leverage them to achieve their objectives. This provided insight into RQ3 about attempts to leverage IC. Discussion of potential liabilities (RQ4) was found throughout.

3.3 Analysis

Transcripts of each FG were made immediately following, and coding of transcripts was done in Nvivo following the coding scheme of Corbin & Strauss (2008). To ensure that saturation was achieved inductively, all data was coded initially according to an *open* process that gave “all data equal consideration” (Morse, 1995, p. 147). This ensured that saturation did not occur prematurely but out of actual replication in the data. Axial and selective coding providing larger concepts and categories that could explain more and more of the data.

Coding was informed by existing IC models, yet the data suggested nuances in this framework. Thus, the final categories do not represent all possible IC, but only IC of strategic value to the stated goals of the churches.

4. Results

The primary findings of the study include an overview of success defined by church leadership, a description of IC assets, an overview of leadership’s epistemology and approach to leveraging these assets, and a description of potential liabilities uncovered in analysis. Table 1 outlines the assets discovered in the three primary IC categories. It also shows the liabilities attached to each asset.

Table 1: IC Assets and Liabilities

IC Category	As asset	As liability
Human		
Emotional Loyalty	Increases commitment	Commitment based on a feeling can be frail
Optimism	Allows individuals to look beyond immediate success and failure	Is waning as a result of leadership-centric structure
Diversity	Allows them to be one body with different parts	Is leaking due to narrow demographics of relational partners
Honest Imperfection	Allows them to find the good in the struggle and keep moving	No noted liability
Relational		
Accountability	Keeps people working toward the mission without leadership pressure	Is limited, not transferring to taking responsibility in other areas
Partnerships	Provides social capital of financial resources and emotional support that may be asymmetrical	Is limited to people that look like them

IC Category	As asset	As liability
Structural		
Communal Risk Culture	Builds love and provides opportunities for movement and innovation	Consumer-based culture is too reliant upon leadership to get things done, causing missed opportunities for value creation with each structural asset
Embodied Vision	Strengthens commitment to the vision and actually changes behavior	No noted liability
Learning	Provides opportunities for increased growth and commitment to mission	Biblical interpretations introduce boundaries and may keep information out

4.1 Success

Participants were consistent in discussion of success (RQ1). Success meant having an external impact, to be “more effective in outreach beyond our walls.” It meant being “a support and resource for our community.” It meant having “people on the outside who'd look at us and go, ‘you're valuable to us’” They were passionate about this, calling it their “pride and joy.” One participant suggested, “if you needed to call a friend, they'd think of us [the church].” In order for this to happen, they needed to show themselves as just as susceptible to failure as those outside of the church. This helps remove the “barriers to admission” that leadership identified in people outside of the church.

Yet they also wanted to have an impact internally with those already in the church. This required that they be “compelling” and “invigorating.” Success included internal unity. One participant defined this success as “breaking down the walls of the cliques and groups so that we are one community and church instead of a divided congregation.” Above all else, the church wanted to be “a place directed by God.”

4.2 Human Assets

Participants pointed to several Human IC assets to help them achieve this success of external impact and internal unity. These included emotional loyalty, optimism, diversity, and an embracing of imperfection.

2.1.4 Emotional Loyalty

A loyal and committed attitude among congregants was essential to the church's success: “I think it all comes back to commitment.” And this commitment came out of “our love for our church.” Participants agreed that this commitment rose out of an “emotional connection to everything that we do here in the church.” Music was central to this, as it “taps into your emotions.” One participant noted, “There's some Sundays when that music is so powerful, I just want to get up and go home, because it's everything.”

2.2.4 Optimism

A second important attitudinal asset was optimism. Participants embodied the “confidence” to “dream and hope.” Even in areas considered liabilities, participants agreed that “it's getting better” because “as Christians, we believe we've been given gifts by the Holy Spirit, and I have confidence in that.” Participants referred to this optimism as “faith” which allowed congregants “to do and let the Spirit guide you.” In this way, the optimism was not tied to immediate successes; rather, it was tied to belief in future success: “We have this truth of God and what God's given and shown us and told us he will do.”

2.3.4 Diversity

Participants valued the diverse knowledge and capabilities of each congregant: “We have a lot of people from different backgrounds.” As they looked for success both internally and externally, they wanted to highlight the “different points of view” and “variety of gifts” that congregants bring. This was especially important with occupational diversity, as there was “value in what each person's own careers are.” This included skills in teaching, singing, architecture, finance, law, and medicine. Participants relied heavily on the theology of 1 Corinthians 12:12, that “just as a body, though one, has many parts, but all its many parts form one body, so it is with Christ” (NIV).

2.4.4 Honest Imperfection

Participants also valued imperfection, and agreed that everyone falters in carrying out the mission of church: “We always have steps back, but it's fine as long as we're still trying to move forward constantly into spiritual maturity so that we can utilize all that we've been given.” Participants valued this because it was genuine: “Living a life of honesty and showing others that we're not perfect, but we're trying to be better.” They often

described life as a struggle that “is not always going to be perfect.” And as congregants bring this imperfection into the church, “the struggling can make us stronger.”

4.3 Relational Assets

Participants noted internal and external relational elements of value to their success.

3.1.4 Internal

Relationships within the church were characterized as a “yearning and a desire to be with one another.” Relationships were defined by love: “Love, that’s what we’re good at.” There was a strong sense of “friendship and support for each other” that was important for internal success. Participants agreed that “there’s an extraordinary large amount of love with this group.” Their relationships were characterized by “intimacy, vulnerability, trust, and love.”

These intimate relationships resulted in actual social capital *resources*. One participant stated with confidence that “if something were to happen, I could go to a number of people without a doubt and they would give me the shirt off their back to help me.” One participant recalled that “when someone in our church family loses someone they love, we as a church get together and try to minister to them by providing a meal—something they wouldn’t have to worry about.” Another participant personally experienced losses from flooding and noted that the church “organized a group and that Saturday they all came over to my house and helped me rip up all the carpet that we had downstairs that was destroyed and help us get back to at least a point where we would be able to have some semblance of normalcy.” These resources were also intangible, as one participant—who lost her partner 2 years ago—indicated that “I would not be anywhere where I am right now if it hadn’t been for the ministry of everybody in this room and the church and the congregation.”

These intimate relationships also allowed for internal accountability, i.e. holding one another accountable for doing things that further the mission and objectives of the church. Participants were “building accountability” into relationships to ensure continuation of practices like prayer, Bible study, meditation, and fasting—all considered essential components of church success. Participants were not afraid to call one another to account: “Well, have you read your Bible? Have you ever been to a Bible study? What do you mean how do you know that?”

3.2.4 External

All churches viewed their relationships with external nonprofit organizations as extremely valuable. This included local food banks, LGBT support centers, Ronald McDonald house, addiction support groups, prison ministries, etc. This also included the building of relationships with those individuals they seek to serve as part of their external indicators of success: “Through the food pantry ministry we’ve built relationships with those who are in need of food assistance in the community.” Yet, the goal was not to own this market of needy people, but to figure out where they could meet needs and where others could meet needs.

Similar to internal relationships, these external partnerships resulted in actual social capital resources. This became apparent during difficult times, as churches held a unique place within the community: “A few years back a church burned down, and the whole greater Columbia area pitched in and helped them out to rebuild.” The UCC congregation had experienced flooding within the last 2 years, and noted that “we got a lot of support from the local community.”

These partnerships were particularly important with other churches: “I’ve been trying to keep us aligned with the other churches and talk with them and, you know, see if there’s any way that we can help each other back and forth.” Several participants noted value in their denominational affiliations: “The United Methodist Church is connected with all the United Methodist churches across the world. So, there is tremendous value to partner in and take resources.” Another participant noted that, if something were to happen to the church, “there are three other big denominations that are right here that we do have relationships with. I know for a fact they would come and help.” Thus, it was not assumed that these partnerships would be mutually beneficial, as times may call for asymmetrical assistance such that larger churches may shoulder the burden of smaller churches.

4.4 Structural Assets

Structural assets included a culture of communal experiences and risk, an embodied vision, and a culture of learning.

4.1.4 Communal Risk Culture

The churches valued the space for communal experiences. The things they did together—reading the Bible, meditating, fasting—are those pieces of our communal experience that we share and that build us up regardless of what other physical assets we have.” This communal space not only provided opportunities to “find people’s spiritual gifts and put them to use,” but it did so in a way that promoted risk-taking. They focused on “making space for people to take risks.” These risks were promoted within a culture that provided support for both success and failure: “We can teach others how to encourage you rather than tear you down, that when you step out on that limb with that thing that you’re nervous about, we can teach others to step up and support.”

4.2.4 Embodied Vision

Participants showed a very strong vision that transcended the immediate success of the organization itself, yet helped them achieve that success. More than simply achieving inward and outward impact, the churches had a mandate from God that went beyond this: “Even more than just what we’ve said we’ll do, it’s what we’ve told God we’ll do. This is what God has put before us is to do this.” Another participant called them “little nudges from God . . . I’m supposed to act on that.” Because of this, the vision stayed with them and impacted behavior outside of the church: “In my day-to-day life, because I’m involved in church, I’m more able to provide a Christian-like attitude that is honest, supporting, and fair.” When discussing the success of the church, one participant noted, “To me it becomes something that I want to embody myself.”

4.3.4 Learning

There was also a strong culture of learning that was part of the branding of each church: “I would think a good goal would be for someone to say, ‘That’s a church where you will learn what it means to follow Christ.’” Participants were aware of the need for learning and growth, especially with those new to the church: “Some of us don’t know how to further that relationship [with God], and we need to teach them how to further that relationship.” And this learning did not end at some stage of mastery: “We can all still learn about God, at all levels—youth and adults.” This was often referred to as *discipleship*, and participants noted excitement in the church about this: “We had excitement about the classes; I felt like people really enjoyed the classes and learning.” The content of this learning was closely aligned with their biblically based definitions of success: “One of the big focuses this year is to be intentional with more time to teach and provide the biblical values and learn the books of the Bible and learn the stories and the history.”

Yet participants also noted value—especially as it related to their external success—in learning about the environment around them. Rather than merely focus on themselves, “we’re a people who focus on a certain level of emergency status, stress—that healthy stress where we’re focused on outside of us instead of our own deal.” This was seen as necessary, because “the community changes, our surroundings change, so if we don’t change with it, grow with it, we’re goanna die.” One participant noted, “Ideally we would be on the edge of chaos.”

4.5 Leveraging Assets

Analysis of how churches attempted to leverage these assets (RQ3)—or turn *intellectual* assets into *intangible* assets (Caddy, 2000)—reveals one primary leveraging action for each of the three IC categories. This represents their view of the best ways to extract this value. It represents areas of intentionality: “I think intentionality is the key. Being intentional about what we’re doing moving forward, recognizing this and being intentional.”

5.1.4 Intentional Extraction

In order to leverage the human capital of the church, participants tried to engage in attempts to extract and find out what congregants offered: “What does that person bring? Is there something that we can pull out of that person that will make them want to come more often.” This was done primarily by “providing an environment where we can tell our stories.” Participants agreed that “the church has always been based on people sharing their experiences of God with one another.” Important to the success of all churches was

increasing their awareness of these stories: “We can find those stories and share them in a way that people can see pieces of themselves in your story.” This was particularly helpful for increasing involvement of congregants: “What is that thing that they’re terrified of doing that you’ve just given them the freedom to do try because you said, ‘Yeah I was terrified when I started doing this, too?’”

5.2.4 *Intentional Interaction*

In order to leverage the relational capital of the church, participants focused on increased socialization and richness of communication “to provide opportunities and events that are multi-generational to really get to know one another.” They focused on increasing face-to-face communication in small groups to leverage the love and accountability in these relationships: “The most meaningful relationships I’ve formed seem to come from small Bible study groups.” These smaller groups serve as a “bridge to know what people need in each service.” Yet these activities could not merely be advertised with an expectation of high turnout. Instead, they strived to intentionally “tell people that we want them there.”

5.3.4 *Intentional Change*

In order to leverage the communal structural capital, particularly of commitment to change and learning, participants focused on openness to the abandonment of existing structures and processes: “We have moved to a place where we’ve found new assets; we’re going to do something different.” This is aligned with renewed faith and “energy” to accept the changing environment: “Church as the 1950’s model is over. It’s waning. And there’s a new culture of church. We need to trust it will work.” Regarding those who have left the church, it was noted, “If we want them to come back, we have to be different, because they think they already know us.” This was also tied to a more intentional use of their vision, which assumed movement: “We use the mission as the rallying cry pulling us toward doing Gods will.”

4.6 Liabilities

As noted, however, IC cannot be viewed merely optimistically, assuming it will create the value it purports to create. There exist liabilities, which are here examined to answer what might lead to a failed realization of IC (RQ4). Human liabilities included emotion and internal awareness and diversity. Relational liabilities included accountability, and partnerships and diversity. Structural liabilities included a leadership-driven culture

6.1.4 *Human*

Although emotion was considered essential for increased commitment, emotions were also blamed for a lack of commitment. Participants noted that commitment was often frail due to small, emotional reactions: “If you all aren’t singing my favorite hymns I get upset with you.” Participants noted that this emotion hurt commitment when “people were maybe focused elsewhere.” This led to people often leaving the church for unknown reasons: “For various reasons people just stopped coming.” This primarily included emotional attachment to political views and personal preferences.

Participants noted the importance of knowing what skills and attitudes congregants offered, yet “we probably know about 20 percent of the people really well and the other 80 percent we don’t know very well at all.” Because they lacked this awareness of themselves, they failed to recognize where they could increase diversity in order to break down cliques—something noted as part of their success. They struggled with what it meant to be a “conglomerate that is not just your normal, clean, white male.” They wanted to have an attendance that was “reflective of the community,” yet each church had a mostly Caucasian attendance that did not match the diversity of their communities.

6.2.4 *Relational*

Although participants noted the value in internal accountability, they shifted blame when accounting for their lack of relevance in the community: “The world, the culture, the world we live in. Everything’s competing for our attention. The church has kinda become the spare time thing.” Although they recognized the need to change to reflect the community around them, they simultaneously blamed this community: “Today’s environment and today’s culture contributes something to our lost relevance as well.”

In the valuable partnerships noted by participants, they admitted that these partnerships are very narrowly chosen based on those groups who are like them: “I think our focus is on one population. We eliminate people when we do that.” They agreed that, “If we want to talk about people who are not like us, we could make a

very intentional move to the transient population in our community.” However, “We have not taken advantage of those to date.”

6.3.4 Structural

Participants noted the value of a communal culture that provides opportunities for co-creation. Yet, much of this co-creation is being missed, as too much falls on the leadership teams within the church: “It takes more than one person to have an idea in order for it to come to fruition, and I think we fall short in that area.” Often, the hierarchical structure of the church contributed to this. One participant noted wanting to repair broken lights in the church, but “there’s the fear of, I can’t do things because I’ll get in trouble with that committee.” This led a near complete lack of creation: “We are a maintenance church, I would say. There is a sense of just maintaining what we do.” This led to the optimism of leadership—something noted as a valuable asset for success—waning: “You burn out quick.” Participants agreed, “we’re all tired, and we all do a lot.” This led to decreased optimism about the ability to inspire co-creation within the larger congregation. This was often related to what they viewed as a “consumer culture.” In this culture, “people come and sit and expect to be fed and then leave and come back the next time and expect to be fed.”

5. Discussion

5.1 Traditional Classification

The aim of the current research was to first open up to questioning the traditional three-pronged classification of IC—human, relational, and structural. This was done by guiding participants in a discussion of intangible assets that did not prompt them to think in terms of these three areas. Yet, analysis of responses suggests that answers still fit into these three categories, thus validating the traditional models. This makes sense, given the abstract nature of these models (Kaufmann and Schneider, 2004). However, analysis showed important detail and subtopics within this broad classification that can be more practically applied in other contexts. For instance, asking organizations to look at the potential of better leveraging accountability to provide members with ownership of the mission is more direct and easier to implement than simply suggesting they leverage relationships.

Although fitting this general classification, the current study revealed that many assets were related outside of their asset classification. For instance, the structural vision asset that characterized *how things are done around here* was related to the human asset of commitment and loyalty. The relational asset of love and social capital was possible because of the human asset of honesty about imperfections that broke down the façade of perfection. The structural asset of risk-taking was possible because of relational support for both success and failure. This is significant because it shows that efforts to prioritize certain elements of IC may inadvertently impact others. Researchers and practitioners must be aware of these connections before deciding to focus on one asset at the expense of another.

5.2 Context

As part of this aim to open the model up, context became a crucial component. Analysis showed that, although they still valued the traditional classifications of IC, the subtypes of IC valued by the churches differed significantly from those valued by other contexts. Table 2 summarizes key assets according to their general type and context. Several important conclusions can be drawn from this analysis. First, assets in other contexts tend to focus on ownership, e.g. patents are owned, market shares are owned. Any collaborative effort is done with assumptions that they will be mutually beneficial. In contrast, the churches viewed other organization’s ability to meet a need as an asset. This is because they cared more about the need itself than who would provide the solution to that need. The relational assets the churches prioritized included a shared stewardship of a need, letting other organizations take over when they could better meet a need. Second, assets in other contexts tend to focus on showing and highlighting what people know, either through formal educational achievement or evidence of integration of processes. In contrast, the churches viewed the admission of imperfection and lack of knowledge as itself an asset. Finally, assets in other contexts tend to focus on codification, either for technological automation or tangible product offerings. In contrast, the churches valued a maintaining of the messiness and tacit nature of a culture driven by God. The focus was not on codifying this, but continuing to explore it.

A central question raised from the current research is how these other organizations might benefit from these insights as they consider the IC assets they prioritize. Clearly, the profit-driven nature of non-church contexts

influences many of their priorities. Yet, the researcher is neither convinced that profit necessitates such priorities, nor that these church assets are not already present and potentially beneficial in other contexts. The human assets of loyalty, optimism, and honesty are not church-specific. They are simply deeper levels to traditional attitude assets, and churches provide case studies for how this can be developed. Many organizations would be interested in identifying how the relational capital of trust and collaboration are evidenced in actual capital resources.

Table 2: Differences in Key Assets by Type and Context

	Churches	Automotive manufacturing (Marzo, & Scarpino, 2016)	Healthcare (Covell, 2008; Vagnoni & Oppi, 2015)	Banking (Mention & Bontis, 2013)	Insurance (Zakery & Afrazeh, 2015)	Pharmaceutical (Boekestein, 2006)
Example of Key Human Asset	Admission of imperfection	Knowledge of standardized techniques and processes	Formal education	Creativity for innovation	Formal education	Not mentioned on balance sheet
Example of Key Relational/Market Asset	Asymmetrically beneficial partnerships with community groups	Mutually beneficial relationships with outsourcers	Coordination of services with local providers	Frequent customer interaction	Market share	Occasional mention of customer relationships
Example of Key Structural Asset	Mission directed by something larger than themselves	The products of codification efforts	Use of best practices and protocols	Use of information systems	Diversity of product portfolio	Patents, databases, and technology

Future research should consider, for instance, the feasibility and potential benefit of a profit-driven organization that prioritizes customer satisfaction in such a way that it is willing to give up market share to other organizations better suited to fill a need. Rather than chasing down potential customers that will not be completely satisfied, would they not be better off focusing on those customers whose needs truly do fit what the organization offers? In addition, what would happen if an organization valued—rather than attempted to cover up—its imperfections? This could help them better leverage assets, as organizational members are encouraged to highlight deficiencies. It could also create a culture of risk-taking that spurs innovation, as members are not afraid of failure. Finally, organizations could benefit from a decreased focus on codification. Given the complexity of any organizational system, most of the richest parts of it occur in domains of complexity (Snowden, 2002). Forcing simplicity through codification can put the organization on the verge of chaos.

5.3 Liabilities

Another important element discovered in the current study is that assets can easily become liabilities if not properly managed. This continues much needed research into IC liabilities (De Santis & Guiliani, 2013), and validates the claim that intangible assets can also explain problems in an organization (Garcia-Parra et al., 2009). It reaffirms management's need to monitor for possible negative effects from IC (Dumay, 2013). Commitment, for instance, was an asset; yet, not properly managed and maintained, it easily becomes a liability, as the same behavior type causes lack of participation. Liabilities concern the possibilities that existing IC could disintegrate or deteriorate into something harmful (Harvey and Lusch, 1999). Organizations would do well to take a closer look at their assets and brainstorm the possible ways they could end up hurting them if not properly maintained.

5.4 Leveraging

The current research also considered the ways in which the churches attempted to leverage assets. Analysis suggests that this leveraging follows closely with Stacey's (1996) control parameters for complex adaptive systems, which suggests that "the pattern of behavior of a particular system as a whole changes as its control parameters are altered" (p. 54). They include information flow, diversity, and richness of connection. This has practical implications for organizations wanting to better leverage and develop their assets to achieve their mission. The leveraging of human capital required an increase of information flow through the creation of an environment that supported storytelling. The leveraging of relational capital required an increase in the

richness of connection, as more opportunities were provided for face-to-face interaction in small groups. The leveraging of structural capital required an increase in diversity, as the need to change and abandon existing models was realized only through the inclusion of more and more diverse individuals.

6. Conclusion

This study sought to validate the traditional classifications of IC, as well as introduce contextual elements that add to what is known about IC. The results of this study have several implications for practice and future research. It reinforces the importance of strategy and mission when discussing the prioritization of IC. It also uncovered unique elements of IC that, although they may be unique to churches, could possibly be of value to other contexts. The goal here is to increase such research so that cross-pollination among contexts occurs with newly discovered assets, such that organizations realize valuable assets they may have but have not leveraged. Further nuances in IC liabilities were discovered, and the ways in which IC can be leveraged was shown to follow a pattern similar to the guiding of any social system.

This study's significance comes from its uncovering of subtle nuance in the human, structural, and relational assets churches considered valuable to achieving success. These assets included a loyalty and optimism that went beyond immediate reward or success, but was tied to a larger vision. This vision was inseparable from the personal wants and desires of each organizational member and extended to life outside the organization. These assets included a focus on deep relationships marked by love, and resulting in actual social capital resources of labor assistance to rebuild flooded homes and the cooking of meals after personal loss. These assets included a space for supported risk-taking in an environment constantly learning about its external environment.

This study also has several significant methodological implications. Involving leadership in an inductive conversation about IC assets is important to success as they define it. This also provides a managerial view of IC related to strategy. By not asking participants directly about human, relational, and structural assets, the provided data reveals an unprompted and richer outline of intangible knowledge resources. Yet, this method does not assume that stated assets are fully recognized, thus providing important data about liabilities in IC. These liabilities provide a larger and more accurate picture of IC within an organization by identifying missed opportunities and leaks. More research is needed into these liabilities in other organizations, shifting away from an optimistic-only view of IC. Particularly significant is the realization that focusing on certain aspects of an asset can actually create liabilities in the same asset. This method also extracts important epistemological assumptions about knowledge assets that impact how organizations approach efforts to leverage the value of these assets.

Future research should look at the extent to which these assets actually are transferable to non-religious organizations. Research is also suggested into other organizations that provide similar deep dives into unique areas of IC. This inductive approach could add completely new categories and understanding to the IC concept.

References

- Abeysekera, I., 2004. The role of emotional assets and liabilities in a firm. *Journal of Human Resource Costing & Accounting*, 8(1), pp.35-44.
- Andreou, A., Green, A. and Stankosky, M., 2007. A framework of intangible valuation areas and antecedents. *Journal of Intellectual Capital*, 8(1), pp.52-75.
- Andriessen, D., 2004a. IC valuation and measurement: classifying the state of the art. *Journal of Intellectual Capital*, 5(2), pp.230-242.
- Andriessen, D., 2004b. Reconciling the rigor-relevance dilemma in intellectual capital research. *The Learning Organization*, 11(4/5), pp.393-401.
- Austin, J., Stevenson, H. and Wei-Skillern, J., 2006. Social and commercial entrepreneurship: same, different, or both? *Entrepreneurship Theory and Practice*, 30(1), pp.1-22.
- Black, I., 2006. The presentation of interpretivist research. *Qualitative Market Research: An International Journal*, 9(4), pp.319-324.
- Boekestein, B., 2006. The relation between intellectual capital and intangible assets of pharmaceutical companies. *Journal of Intellectual Capital*, 7(2), pp.241-253.
- Bounfour, A., 2003. The IC-dVAL approach. *Journal of Intellectual Capital*, 4(3), pp.396-413.
- Brooking, A., 2010. On the importance of managing intangible assets as part of corporate strategy. *Electronic Journal of Knowledge Management*, 8(2), pp. 217-224.
- Byrne, M., 2001. Disseminating and presenting qualitative research findings. *AORN Journal*, 74(5), pp.731-732.

- Caddy, I., 2000. Intellectual capital: recognizing both assets and liabilities. *Journal of Intellectual Capital*, 1(2), pp.129-146.
- Choong, K., 2008. Intellectual capital: definitions, categorization and reporting models. *Journal of Intellectual Capital*, 9(4), pp. 609-638.
- Corbin, J. and Strauss, A., 2008. *Basics of qualitative research: techniques and procedures for developing grounded theory*. 3rd ed. Thousand Oaks, CA: Sage.
- Covell, C.L., 2008. The middle-range theory of nursing intellectual capital. *Journal of Advanced Nursing*, 63(1), pp.94-103.
- Creswell, J., 2014. *Research design: qualitative, quantitative, and mixed methods approaches*. 4th ed. Thousand Oaks, CA: Sage Publications.
- De Santis, F. and Giuliani, M. (2013), "A look on the other side: investigating intellectual liabilities", *Journal of Intellectual Capital*, Vol. 14 No. 2, pp. 212-226.
- Diefenbach, T., 2006. Intangible resources: a categorical system of knowledge and other intangible assets. *Journal of Intellectual Capital*, 7(3), pp.406-420.
- Dumay, J., 2009. Intellectual capital measurement: a critical approach. *Journal of Intellectual Capital*, 10(2), pp.190-210.
- Dumay, J., 2013. The third stage of IC: towards a new IC future and beyond. *Journal of Intellectual Capital*, 14(1), pp.5-9.
- Edvinsson, L. and Sullivan, P., 1996. Developing a model for managing intellectual capital. *European Management Journal*, 14(4), pp.356-364.
- Garcia-Parra, M., Simo, P., Sallan, J.M., and Mundet, J., 2009. Intangible liabilities: beyond models of intellectual assets. *Management Decision*, 47(5), pp.819-830.
- Guthrie, J. and Petty, R., 2000. Intellectual capital: Australian annual reporting practices. *Journal of Intellectual Capital*, 1(3), pp.241-251.
- Habersam, M. and Piber, M., 2003. Exploring intellectual capital in hospitals: two qualitative case studies in Italy and Austria. *European Accounting Review*, 12(4), pp.753-779.
- Halawi, L., Aronson, J. and McCarthy, R., 2005. Resource-based view of knowledge management for competitive advantage. *The Electronic Journal of Knowledge Management*, 3(2), pp.75-86.
- Harvey, M.G. and Lusch, R.F., 1999. Balancing the intellectual capital books: intangible liabilities. *European Management Journal*, 17(1), pp.85-92.
- Herzlinger, R., 1996. Can public trust in nonprofits and governments be restored? *Harvard Business Review*, [online] (March-April). Available at: <https://hbr.org/1996/03/can-public-trust-in-nonprofits-and-governments-be-restored> [Accessed 26 May 2017].
- Kamberelis, G. & Dimitriadis, G., 2011. Focus groups: contingent articulations of pedagogy, politics, and inquiry. In N.K. Denzin & Y.S. Lincoln, eds. *The sage handbook of qualitative research* (4th ed.). pp. 545-561. Thousand Oaks, CA: Sage.
- Kaufmann, L. and Schneider, Y., 2004. Intangibles: a synthesis of current research. *Journal of Intellectual Capital*, 5(3), pp.366-388.
- Kianto, A., Humelinna-Laukkanen, P., and Ritala, P., 2010. Intellectual capital in service-and product-oriented companies. *Journal of Intellectual Capital*, 11(3), pp.305-325.
- Kong, E., 2014. A qualitative analysis of social intelligence in nonprofit organizations: external knowledge acquisition for human capital development, organizational learning and innovation. *Knowledge Management Research & Practice*, 13(4), pp.463-474.
- Leitch, C., Hill, F.M., and Harrison, R.T., 2010. The philosophy and practice of interpretivist research in entrepreneurship: quality, validation, and trust. *Organizational Research Methods*, 13(1), pp.67-84.
- Marr, B. (2008), *Impacting Future Value: How to Manage your Intellectual Capital*. CMA: Mississauga, ON.
- Marr, B. and Adams, C., 2004. The balanced scorecard and intangible assets: similar ideas, unaligned concepts. *Measuring Business Excellence*, 8(3), pp.18-27.
- Marr, B., Schiuma, G. and Neely, A., 2002. Assessing strategic knowledge assets in e-business. *International Journal of Business Performance Management*, 4(2/3/4), pp.279-295.
- Marti, J., 2001. ICBS – intellectual capital benchmarking system. *Journal of Intellectual Capital*, 2(2), pp.148-165.
- Marti, J., 2007. In search of an intellectual capital comprehensive theory. *The Electronic Journal of Knowledge Management Volume*, 5(2), pp.245-256.
- Marzo, G. and Scarpino, E., 2016. Exploring intellectual capital management in SMEs: an in-depth Italian case study. *Journal of Intellectual Capital*, 17(1), pp.27-51.
- Mention, A. and Bontis, N., 2013. Intellectual capital and performance within the banking sector of Luxembourg and Belgium. *Journal of Intellectual Capital*, 14(2), pp.286-309.
- Morse, J., 1995. The significance of saturation. *Qualitative Health Research*, 5(2), pp.147-149.
- Mouritsen, J., Bukh, P., Larsen, H. and Johansen, M., 2002. Developing and managing knowledge through intellectual capital statements. *Journal of Intellectual Capital*, 3(1), pp.10-29.
- Prugsamatz, R., 2010. Factors that influence organization learning sustainability in non-profit organizations. *The Learning Organization*, 17(3), pp.243-267.
- Ramírez, Y. and Gordillo, S., 2014. Recognition and measurement of intellectual capital in Spanish universities. *Journal of Intellectual Capital*, 15(1), pp.173-188.
- Schaper, S., 2016. Contemplating the usefulness of intellectual capital reporting. *Journal of Intellectual Capital*, 17(1), pp.52-82.

- Simmons, H., 2009. *Case study research in practice*. Thousand Oaks, CA: Sage.
- Snowden, D., 2002. Complex acts of knowing: paradox and descriptive self-awareness. *Journal of Knowledge Management*, 6(2), pp.100-111.
- Stacey, R., 1996. *Complexity and creativity in organizations*. San Francisco, CA: Berrett-Koehler Publishers.
- Steenkamp, N. and Kashyap, V., 2010. Importance and contribution of intangible assets: SME managers' perceptions. *Journal of Intellectual Capital*, 11(3), pp.368-390.
- Stewart, T., 1997. *Intellectual capital: the new wealth of organizations*. New York, NY: Doubleday.
- Sveiby, K., 1997. *New organizational wealth: managing & measuring knowledge-based assets*. San Francisco, CA: Berrett-Koehler.
- Vagnoni, E. and Oppi, C., 2015. Investigating factors of intellectual capital to enhance achievement of strategic goals in a university hospital setting. *Journal of Intellectual Capital*, 16(2), pp.331-363.
- Venzin, M., von Krogh, G. and Roos, J., 1998. Future research into knowledge management. In: G. von Krogh, J. Roos and D. Kleine, ed. *Knowing in firms: understanding, managing, and measuring knowledge*, pp.26-66. London: Sage Publications Ltd.
- Zakery, A. and Afrazeh, A., 2015. Intellectual capital based performance improvement, study in insurance firms. *Journal of Intellectual Capital*, 16(3), pp.619-638.