Exploring Intellectual Liabilities in Universities – Case Study of a Public Sector University

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Abstract

Public universities are going through a tough time in Pakistan and some of the old universities are facing severe financial crisis to the extent that they cannot even pay their employees. This drift took a long time, and it is mainly due to increase in the intellectual liabilities. While intellectual capital is seen as non-physical resources which helps to create value, intellectual liabilities are the intangible rigidities that destroys the value.

This paper explores the creation of intellectual liabilities in universities due to different prevailing processes and practices and the ignorance of its implications by the management, using a public sector university as a case study. Actor-Network Theory is utilized to develop the understanding of the phenomenon, to appreciate the complexity of reality and understanding how social effects are generated as a result of associations between different actors in a network

A qualitative research approach was adopted, and primary data was collected through semi-structured interviews and thematic analysis have bene utilized for its analysis. Findings suggest that intellectual liabilities have a destructive role in universities. The findings can prove useful to human resource managers, policy decision-makers, as well as government and academic institutions in understanding what intellectual liabilities is and how they can develop gradually if not prevented.

Keywords: *Intellectual Capital, Intellectual Liability, Actor-Network Theory*

1. Introduction

Intellectual capital (IC) has a vital role in value creation and competitive advantage in organizations (Matos, 2020; Januskaite & Uziene, 2018). IC is defined as any intangible such as; a brand, technology, process, knowledge, skills and others which contribute to the generation of economic benefit and value creation for organizations (García-Ayuso Covarsí, Sánchez Muñoz, & Cañibano Calvo, 2004). The earlier conceptualization of IC associate it with the difference between book-value

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and market-value of an organization (Penman, 2009; Tsai & Lu, 2006). IC is broadly categorized into three components (Sveiby, 1997; Bontis, Dragonetti, Jacobsen, & Roos, 1999), human capital, structural capital, and relational capital.

Human Capital (HC) is the competency of the employees for the enhancement of intangible and tangible resources and is the absolute intelligence and skills of the employees. Structural Capital (SC) can be defined as 'what remains back when the employees leave the company' (Sveiby, 1997). This includes all the non-human knowledge in organizations, like databases, procedures, routines, and management strategies. Lastly, Relational Capital (RC) indicates the value inherent in an organization's relationships with its customers, and its stakeholders. Further, IC literature distinguishes IC into static and dynamic perspectives (Edvinsson & Malone, 1997), the static perspective emphasis on three components of intellectual capital and their properties, while the dynamic perspective investigates the interactions between the IC components and its effects (Cuganesan & Dumay, 2009).

In the IC literature, the value creating role of the IC became one of the major grand theories (Hanson, 1988; Barry & Stewart, 1997; Beam, 1997; Edvinsson & Malone, 1997). However, the above understanding of IC needs to be reconsidered as it does not take Intellectual Liabilities (IL) into account. There are indeed unrecorded intellectual assets when the market value is more than the book value of a company (Tsai & Lu, 2006), however, researchers such as Harvey and Lusch (1999) point towards the downside of the intangibles as well analogizing it with the accounting equation and arguing that if there are intangible resources then there should be intangible liabilities as well and it should be recognized too. They (ibid.) indicate towards the issues of weak strategic planning, turnover of employees, inadequate trainings, structure and culture and weak relationships with stakeholders as some of the examples of IL.

This research aims to explore IL in universities because a vast body of research exist on the role of IC in the value creation (Bowman & Toms, 2010; Palla, Higgins, Wareham, & Sharp, 2010; Abernethy, Horne, Lillis, Malina, & Selto, 2005) however there is scarcity of research on the critical side of IC that is IL (Dumay, 2013; Maenpaa & Voutilainen, 2012; Santis & Giuliani, 2013, Giuliani 2015; Giuliani, & Chiucchi, 2019). Similarly, several public universities in Pakistan are passing through financial and managerial crisis (Nisar, 2019) and this can be associated with the creation of IL in these organizations (Bukowitz & Petrash, 1997; Caddy, 2000; Brunold & Durst, 2012; Giuliani 2016; Giuliani, & Chiucchi, 2019) and specifically in the case of Pakistan, literature is almost non-existent on IL (Khan & Nouman, 2019; 2015). This research aims to contribute towards this important research gap that is, to develop an understanding of the existence of intellectual liabilities in HEIs and its probable causes. This aim is explored through the following two research questions:

RQ1: How do different practices and processes lead to the creation of intellectual liabilities in universities?

RQ2: Why are the implications regarding intellectual liabilities being ignored by the management of universities?

This study is structured into six sections; the current section discusses the research gap and research questions. Section two provides a literature review of the study, focusing mainly on any issues related to IL. Section three presents the methodology through which data collection is performed and discusses the procedures used to obtain the data, along with the reason for using procedures. Section four gives a presentation of the stepwise analysis of collected data and the process from coding to theme development, after the result presentation, findings of the research, and general discussion which compares the obtained results with previous research. Section five provides a conclusion to this study. The final section examines the limitation of this study and suggests future research avenues.

2.   Literature Review

2.1. Intellectual Liabilities

Any intangible obstacle that comes between the organization's goals is an IL (Stam, 2009). IC creates value and IL is the restraining force for value destruction (Cuganesan, 2005; Cuganesan & Dumay, 2009; Dealtry, 2008; Santis & Giuliani, 2013).

IL has been conceptualized in two ways, firstly as value-depreciation of IC (Abeysekera & Guthrie, 2004; Caddy, 2001), while some researchers argue it to be the risks or non-monetary obligations in the acquisition and management of IC (Garcia-Parra, Simo, Sallan, & Mundet, 2009; Gowthorpe, 2009; Harvey & Lusch, 1999). This second view argues regarding the volatility of IC and its components and raises the issues that can be encountered by organizations in the acquisition and later management of IC due to organizational processes and practices (Cuganesan & Dumay, 2009; Brunold & Durst, 2012; Kupi, et al., 2008). Some researchers (Garcia-Parra et al., 2009) argue that putting IC in practice, which is the latest track of IC research (Dumay, 2012; Dumay & Garanina, 2013; Dumay, Guthrie, & Rooney, 2017) provides an opportunity for the firm to critically analyze the environment as for what are the hurdles in the intellectual value creation and should also point towards the presence of the deficiencies (Martí, 2003) as showing only upside would be just akin to showing a good picture but avoiding to disclose the full picture and it could have fatal consequences for the organizations (Abeysekera & Guthrie, 2004; Stam, 2009). Thus, is makes the concept of IL important as it is not only the IC to look for,

but organizations need to critically look for the probable risk of formation of IL too.

Taking it further, Kontić and Čabrilo (2009) argue that IL should be measured too because by not taking into account, several problems can arise in organizations such as; HC shortage due turnover, skill mismatching due to lack of strategic management, talent exodus due to demotivation, and low productivity levels due to lack of training are just a few of the consequences of not evaluating any IC indicators (Harvey & Lusch, 1999; Stam, 2009). Similarly, Harvey and Lusch (1999) add that it will be a narrow approach to think that IC only contributes to value growth and avoiding the IL that may be occurring in the organization while growing up.

Researchers are criticizing the IC models and frameworks, that such models/ frameworks are still emphasizing on the IC perspective (its presence, measurement, and management) while ignore the liabilities side, even though there has been an acknowledgment of its existence. To control the uncontrollable circumstances for an organization's advantage, it is crucial to monitor IL as well (Abeysekera & Guthrie, 2004). However, this is still an area where more work is needed to develop frameworks/ models to help identifying the ILs, its measurement and management to avoid the organizational decline. Simply by highlighting the IC of an organization provides an incomplete image and as partial knowledge is a dangerous thing, how can the management foresee value deterioration when they are not fully aware of IL (Caddy, 2000). Intellectual liabilities do not arise suddenly rather it evolves over time from IC into IL. The next few paragraphs discuss IL in the HEIs.

2.2 Intellectual Liabilities in the Higher Education

The most important component of IC is HC which is the lifeblood of an organization (Smith, 2006). Throughout the history, the major cause of HC to convert into human liability has been resistance to change (Strebel, 2009) which is any phenomenon that hinders the process at the beginning of its development (Sánchez-Prieto, Huang, Olmos-Migueláñez, García-Peñalvo, & Teo, 2019). One important thing that managers forget to realize is that for change to occur they need to have a workforce that not only predicts a change but also prepares for change (Senge, 1997).

Those universities that desire not just to survive but also to thrive and gain growth, tend to take a proactive approach towards the development of learning environment and culture, the essence of both is effective leadership (Sidle & Warzynski, 2003; Etzkowitz, 2003). Interaction is the main element of leadership, which depends on social and organizational relationships, and networks of communication. Therefore the success or failure of leadership depends on interactions and that can either result in relational capital or otherwise relational liabilities (Yammarino & Bass, 1990;

Harvey & Lusch, 1999; Khan & Nouman, 2019).

The poor quality of education in Pakistan is the reason for low employability, poor employees' performance, and lack of creativity and innovation (Rehman & Khan, 2014). To drive towards betterment requires, the development of the adaptive capacity or strategic flexibility which is a part of the SC component of the IC (Noriega, Heppell, Bonet, & Heppell, 2013). However, organizations which lack this capacity usually resist to adapt to changes in the environment due to lack of motivation in its HC thus resulting in the formation of ILs in their organizations (Nisar, 2019; Reiche, Stahl, Mendenhall, & Oddou, 2016) .

Similarly, value creation through IC happens via the integration of HC, and RC with the SC. Though policies and organizational culture are parts of SC and they are essential for the operations of an organization their 'right' configuration is essential and when this network or configuration is not linked in the optimum manner then it results in the creation of IL as per ANT there is no distinction between humans and non-humans (Latour, 2006), making SC equally vital for the IC network to work (Gogan, Duran, & Draghici, 2015). SC is something that is owned by the institution exclusively, which if managed effectively can add value (Van Zyl, 2005), while the opposite is true for mis-management which creates structural liabilities.

Structural factors such as learning environment, effective feedback, and monitoring systems are various factors that help improve the quality of higher education thus SC is something that holds a crucial value in the process of learning when universities are discussed, since better SC results in the better education system and improves overall student output, reduces dropouts and other beneficial factors (Brown & Duguid, 1996; Shimmi & Yonezawa, 2015;Teixeira, Jeremie, & Gresham, 2017)

When it comes to knowledge (SC), inside sharing supports the consistent competitiveness of organizations (Ordóñez de Pablos, 2003), while on the other hand when utilized ineffectively can result in orphan knowledge (Caddy, 2000). Higher education's purpose is to provide services to the community by educating, training, and researching. Providing such services seems to be difficult for Pakistan because of the orthodox nature of the structural dimensions (Nisar, 2019). For example, most of the public HEIs lack the basic requirements for quality education, and have jam-packed classes with over-worked teachers, lacking proper facilities (Rehman & Khan, 2014). All structural issues occur due to mismanagement of the ones in charge. Poor SC in HEIs results in the creation of rotten knowledge and orphan knowledge (Caddy, 2001) thus hindering the process of innovation and creativity in the HEIs which are a major output of the HEIs in the knowledge economy as universities are considered as hub of the entrepreneurship, creativity and innovation in a knowledge ecosystem

(AcademiaMag, 2019; Bratianu & Pinzaru, 2015; Rehman & Khan, 2014).

In a knowledge economy, survival depends on how much investment is made on the students in the form of education (Rehman & Khan, 2014) but most of the public sector HEIs are influenced by politics which gravely damages the institute (Tadaki & Tremewan, 2013). It is rare to find someone on the board of governors who has made knowledge contributions and knows how to run the organizations properly (Nisar, 2019). Poor management and governance of the HEIs bring an institution from a boom state to the brink of survival and further to destruction.

Similarly, reputation attracts students and capable employees to join a HEI (Beam, 1997). Reputation is something institutions are seriously concerned with, due to the increasing need for funds and decreasing students' enrollments (Nisar, 2019). Universities spend a large chunk of financial resources for reputation development only to see all that investment go to waste due to the negligence of a few (Vugt & Hardy, 2010). According to a 2018 survey , 78% of Pakistani employers are dissatis-fied with university graduates in Pakistan, blaming universities for not providing the required skills and knowledge (AcademiaMag, 2019) which shows that Pakistani HEIs are ignoring an important intangible for success.

The blame for damaged reputation goes to the management of universities since they fail to take responsibility for monitoring their investments however, the main inputs and outcomes of universities are intangibles, therefore measurement and management become difficult due to limited instruments (Veltri & Puntillo, 2019). Either way throughout history, it has been seen, decades of hard-earned reputation go to waste due to a single event, hence a call for better management of the intangibles is essential (Clardy, 2005).

Many universities have seen better days and now they cease to exist because of poor management, which affected HC, which caused SC to diminish, and in the same line of reasoning, RC was destroyed. All three components are linked with each other in a chain-like structure, one cannot simply operate without the other and if one component becomes a liability then it is just a matter of time till all three become a liability. Having discussed the different elements of IL in the HEIs, the following paragraphs have discussion on the conceptual framework of the research.

2.3 Conceptual Framework of the Research

The conceptual framework of this research is based on the Actor-Network Theory (ANT) developed by Bruno Latour, Jude Law, and Michel Callon, which emphasizes the idea that 'no one acts alone and nothing exists in this world outside the networks of relationships' (Bielenia, 2010; Latour, 2006; Sims, 2007). ANT is an

establishment of a network in which human and non-human actors hold identities according to the nature of interactions.

The relevance of ANT to this research is the fact that ANT operates on the principle of 'generalized symmetry', which means, humans and non-human are given equal operational importance and are incorporated under the same framework. In ANT both the actors and actants (non-human entities like computers, software, knowledge, data, etc.) share a role for network development, leading to system stabilization (Bardini, 1997). Hence making this theory perfect for the current research as all three components of IC are equally valued, whether it is human or non-human within a social and contextual setting (Chiucchi & Dumay, 2015).

A perfectly running social order starts to crumble when specific actors are disturbed (Law, 1992). For example, technology is a crucial 'actor', and taking it away from university will devastate the whole institute as technology is practically the soul of the modern knowledge economy (Amesse & Cohendet, 2001). The meaning of Actor-Network is that an actor is always in a network, defined by the order of materials and the patterning of relationships.

According to this perspective leadership, knowledge, power, and even organizations are social products or effects of a heterogeneous network or context that surrounds them. For this research, the context includes people, financial resources, facilities, equipment, technology, space, location, and other entities in the network that forms a HEI (Sims, 2007). These entities are competing with other entities for dominance within the network. The patterns that emerge from the struggle defines the network (Cresswell, Worth, & Sheikh, 2010; Law, 1992).

ANT is a constructivist approach since it provides an understanding of the interactions that lead to a successful theory, rather than providing explanations of events and labeling the theory as true or false (Muniesa, 2015). In this way, one gains a detailed description of the concrete mechanisms at work that holds the network together, while allowing an impartial treatment of the actors.

Figure 1 is a diagrammatic presentation of the conceptual framework of this study. It starts with the elements of IC and the conceptualization of what practices and processes turn IC into IL. It starts when employees (human capital) fail to adapt due to changing context, leading to affect the structural capital. The knowledge starts to deteriorate due to a lack of productive utilization, which reflects the lack of productivity in knowledge, disturbed systems, and infrastructure followed by a chain of mishaps.

The damaged HC and SC reflects highly on RC with the lack of quality knowl-
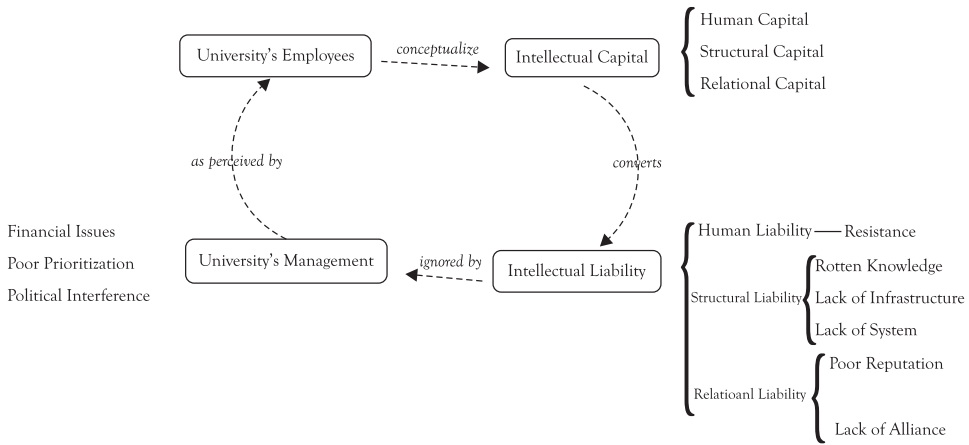
Figure 1: Conceptual Framework of the Research

edge production, which reflects on the reputation of the institution and results in organizational decline. All components of IC are interconnected and are known to produce economic and social benefits altogether, but that backfires when one of them starts to convert into a liability. It can be due to a lack of finances, poor prioritization, and political interferences, as perceived by the university's employees.

3. Research Methodology

Social Constructivism is the philosophy that states that 'human development takes place in a social context and knowledge is constructed through social interaction (Lewis, 2015; Kabele, 1996). Since the current study intends to understand a phenomenon which generates through the social interaction of the actors within a specific context, social constructivism is the best-suited philosophy for this research (Mcmahon, 1997; O'Donnell & King, 2014). Based on research philosophy a qualitative research design was adopted (Hammarberg, Kirkman, & De Lacey, 2016; Lewis, 2015). Similarly a case-study strategy was adopted as such strategy generates a rich description of the phenomenon under question (Saunders, Lewis, & Thornhill, 2015; Lewis, 2015; Yin, 2013). Choosing the 'case/cases' in research is the key element to define a case study (Thomas, 2020) while a case may refer to a process, person, organization, association, event, etc., for this research, the cases are the individuals. After defining the case, the research goes to understanding the dynamics of the topic, referring to case and context interactions (Eisenhardt, 2016; Hassard & Wolfram Cox, 2013).

The context of the study is a public sector university, founded in 1950 with 2,693 staff members and 14,000 students enrolled. The university consists of 6 academic faculties with 40 postgraduate departments and 2 centers of excellence (UoP, 2020).

The university is currently offering undergraduate, postgraduate, and doctoral studies. It is regulated under the Act of the Provincial Assembly while being funded through HEC by the federal government.

This university was selected due to two reasons: One, IL evolves over a prolonged period and the case organization is one of the oldest universities in the country and had the potential of containing the desired phenomena. Two, there were news of its bankruptcy in the newspapers. The fact that one of the most reputed universities has gone bankrupt and does not have any funds to pay their respective faculty and staff members (Anjum, 2019) begs an inquiry to explore the presence of IL in the organization.

Semi-structured interviews were used for the research using purposive sampling (Guest, Bunce, & Johnson, 2006) to understand background knowledge and institutional perspective (Lewis, 2015), as interviews are a fact-finding technique whereby the researchers collect information from individuals through face-to-face interaction (Saunders et al., 2015). The knowledgeable source of information is the key informant (Marshall, 1996), therefore the key informants are chosen based on the criteria of knowledge and experience of the phenomenon and the context. The unit of analysis for this research is 'the working individuals in university's environment. The unit of observations in this research is 'the employees of the university. A total of 9 employees at different positions were interviewed. Table 1 shows the selection of participants.

4. Data Analysis, Findings, and Discussion

4.1 Data Analysis

The interviews were transcribed and analyzed through thematic analysis which is widely used in social, health, and management disciplines (Braun & Clarke, 2006). The data was collected in the form of recordings. The primary language used for the interviews was English, but interviews also contained Urdu and Pashto. The data was transcribed by the researchers themselves and checked for errors. The transcribed data were sent back to the participants for confirmation of the validity of the interviews. The process of data analysis includes determining the categories, sub-themes, and main themes from the descriptions of participants (Braun & Clark, 2006), for this purpose a qualitative data analysis (QDA) software Atlas.ti 8 is used. The steps required to do thematic analysis included as displayed in the Figure 2:

In qualitative research familiarity with the data is very important and a continuous process from the conducting of interviews till the end. The transcripts were repeatedly read, this was followed by the second step of generating initial codes. The process of

Table 1: Selection of Participants

Characteristics	Numbers of Participants
Gender	
Male	5
Female	4
Designation	
Chairman/Chairperson	2
Assistant Professor	3
Lecturer	4
Criteria	
Position of Power	2
Understanding of the phenomena being researched	5
Association with the elements being researched	2
Years of professional experience	
<10	8
>10	1

coding took place in two phases, the 'first cycle coding', done through in-vivo coding which refers to the short phrases and words (terms) that the participants used themselves (Ozanne, Strauss, & Corbin, 1992). To get the words and phrases used in the everyday lives of the participants, rather than derived terms out of academic disciplines or professional practices (Saldaña, 2009). Through first cycle coding, approximately 500 codes were generated (See table 4.2 for in vivo coding clarification).

Figure 2: Steps Involved in Thematic Analysis

After that, the process of reorganizing and reanalyzing the codes was initiated, in the 'second cycle coding'. In second cycle coding, theoretical coding was used as it serves as an umbrella that takes all the other codes and categories in the analysis, into account (Saldaña, 2009). Merger begins with the findings of the primary themes, also called central or core category, it consists of the products of analysis summarized into a couple of words that provide a gist of what the research is about (Ozanne et al., 1992).

In theoretical coding, the subcategories and the categories are linked systemati-

cally with the central or core category, the one with the largest explanatory relevance (Greene, Compton, Whitmore, & Sappington, 1987). Second cycle coding is substantial because previously achieved codes are merged because of their similarity and infrequent codes are reevaluated for their significance in the overall scheme, meanwhile, some other codes that might seem like good codes end up being discarded after the data corpus is reviewed fully (Silver & Lewins, 2014).

The initial 500 codes were reduced to 333 codes which were further merged to develop 22 codes that are considered as themes (shown in Table 2). Table 2 highlights 22 themes developed after the second cycle of coding and in front of each theme is the number of codes it contains. The intention to highlight the number of codes is to identify the emphasis on the theme that the participants have put on. For example, the thirteenth theme 'Maladministration' has the highest number of codes, which shows how participants were keen on speaking about that topic. 'Maladministration' is made up of 38 codes.

The themes emerged from the second cycle coding directed towards the development of subthemes of the research (see Table 3). The 22 subthemes were categorized into 6 groups in *Atlas.ti*. Those groups are considered as subthemes that were intended to be derived from the collected data, i.e., human capital, structural capital, relational capital, human liability, structural liability, relational liability.

These 6 subthemes were a part of two bigger themes, IC, and IL, hence making these two the main themes of the collected data. Table 3 gives a brief idea about the whole process explained above, which starts from the collected data and ends at the

Table 2: Number of Codes and Merged Codes

Number	Themes	Number of codes each merged code contains
1	Alliances	10
2	Bad Leadership	10
3	Bad reputation	11
4	Behavior of teachers	21
5	Biasness	19
6	Casuistry	11
7	Demotivation	20
8	Existence of System	7
9	Financial Crisis	18
10	Good Leadership	6

11	Institution and Human Resources	26
12	Jugglery	8
13	Maladministration	38
14	Organization structure	9
15	Political influence	18
16	Resistance	11
17	Social Interactions	7
18	Structural problems	12
19	Student Aggrievement	24
20	Student Perception	14
21	Technological aspects	5
22	Weak strategic planning	28
	Totals	333

development of two main themes.

4.2. Findings

In the following section, the findings of the study are discussed concerning both of the research questions:

RQ 1: How do different practices and processes lead to the creation of intellectual liabilities in universities?

Case-organization is one of the oldest and a reputable institute of Pakistan. The participants know the value of themselves and other parts of the structure. But a body that massive can be subject to a crisis with the lack of effective leadership and when the importance of money is more emphasized rather than knowledge then the conversion of IC into IL starts.

According to Acad-1, money is a factor which moved the organization from its main objective that is, the learning process:

> "*...when the influence of money is introduced in this profession, the teachers are taking this profession as a job rather than duty which makes a huge difference*"

Acad-2 lamented on the lack of vision for the future:

> "*...based on my understanding, [why our university] is not [performing], because*

Table 3: Themes Development Process

Data Collected	First Cycle Coding (In-Vivo Coding)	Second Cycle Coding (Theoretical Coding)	Sub-theme	Theme
"When you don't get appreciation from the administration for your services, in one way or another, not getting justice, of course, you get demotivated and after a passage of time you turn from an asset to a liability"	"don't get appreciation"	Biasness	Human Liability	Intellectual Liability
	"not getting justice"	Demotivation		
	"get demotivated"			
	"turn from an asset to a liability"	Resistance		
"It was a discouraging observation that people here are almost the same. The situation is stagnant, and nothing has changed concerning research. The quality of research conducted by students and the way degrees are being granted, well I won't call it granting, I would call it distributed among the students is so discouraging and disheartening"	"discouraging observation"	Maladministration	Structural Liability	
	"almost the same"			
	"stagnant"			
	"Nothing has changed"	Weak Strategic Planning		
	"quality of research"			
	"distributed among the students"	Structural Problems		
	"discouraging and disheartening"			

very few public sector universities, including [case organization] and its leadership, have any vision for the future"

While Acad-3 added the lack of strategic leadership with a vision as the cause:

"There is a lack of leadership in the educational institutions. We need the educational leaders that have the vision, [to] build our institutions"

Poor leadership has been the cause of the slow deterioration of the university's IC. The first thing that has happened due to poor leadership is the mismanagement on a large scale and the factor of 'biases' came into being. Favoritism was in every corner of the case organization, and it was affecting the morale of employees.

Mngr-1 explains the nexus between political influence and nepotism to control HEIs:

"I would say everything was completely on nepotism, and politicians had an influence on universities. They do exercise that influence that controls on universities"

Acad-4 sheds the light on the difficulties in HC growth due to the practices of favoritism and dysfunctional conflicts resulting in demotivation of the HC.

"...no matter how energetic you are, over here, in this university, there's a lot of [leg] pulling, there's a lot of favoritism, because of which you have to struggle for your promotion, for your recognition, and that makes you feel sick [mental stress]"

Acad-5 added the absence of organizational justice in the processes as a reason of converting HC in HL:

"When you don't get appreciation from the administration, and when they're not giving you justice, with your services, and you see injustice in the system. Of course, you get demotivated and with time, you become a liability"

Through the statements made by participants, a new concept came to light, that may be favoritism is caused because of political influence. Two types of political influences were identified in a university's environment, positive and negative, a few of the participants had a pretty good definition for positive politics. Like Acad-1 highlights the positive perspective of politicking in the organization linking it with making complex decisions:

"The [major] decisions are not made authoritatively, might be because they want to avoid self-responsibility in case the decision backfires. Instead, the decision is made by a bunch of people with combined responsibilities, if this is politics, then it is good politics"

However, most of the participants were wary of the political practices inside the case-organization and its impact of promotion decisions and overall processes. As per Acad-4:

> *"Hiring, promotions are 80% based on political influence. And at the same time, that also affects the overall scene in the university. [S]sometimes you feel sick, because of these political manipulations"*

While Mngr-1 also affirmed its negative impact:

> *"It has a negative impact on the faculty because those who are playing in the hands of politicians or have, you know, the blessing of military, they are enjoying good positions"*

Other than the negative political influence and nepotism there is a tendency for HC demotivation however, some people are still trying to stay on to make things better. Like Acad-4 added:

> *"...there are people who have given up because of this situation, but they're still like me who still have the stamina, so we're still trying to just put on and get on with these things"*

However, the financial crisis is making it even harder for the employees. As Acad-4 commented:

> *"One, most important is the financial crisis. Lack of money is curtailing their way, whatever they're trying to do"*

Acad-6 again raised the issue of 'money factor' and giving admission the policy of self-financing scheme and its impact on learning environment:

> *"Due to the fact that there are no funds for the university, the university is trying to admit as many students as it can ... which affects the quality"*

The financial situation was getting out of hand so the management came up with a quick short-term solution and as said by the participants, to cope with the current financial situation the management has made the policy to enroll as many students as they can. Acad-7 states,

> *"To fix the financial issues, the university operates on the principle of garbage in garbage out, giving little preference to the merit"*

Acad- 3 also commented on the learning environment and quality of teaching and learning:

"...the university has financial issues nowadays, and this year in the first semester, in a BS they're taking 60, 65 students in one class. And even in the evening 65 students and the university is just trying to get money, due to the financial constraints, they want to enroll more and more students"

Acad-6 attributed pressure from the regulatory body too as a factor for this decline:

"Because of the pressure from [the regulator], there have been admissions at a much larger scale than the actual requirement, to the extent that a department of small numbers of seats now has more than it can take."

There is a limit to the number of students that a department can enroll when that limit is increased to maximize the teaching faculty goes short in numbers thus affecting the quality of education and putting extra pressure on faculty which results in IL as Acad-3 states. *"...this is tarnishing for me that how to take a class with 130 students..."* and Mngr-1 indicated towards burn-out:

"We all are worked out and I am doing more than the workload I am supposed to do. So is the case with the rest of my faculty. We are doing more than actual capacity and at times, it is humanly impossible for us"

All the extra burden of students might work as finance is concerned but it is affecting one of the most crucial 'researching function' of the university. According to Acad-7 it is affecting the faculty's research:

"The teachers are so overly burdened by the management and additional credit hours that they are not able to do any kind of research"

Due to so much overburden, the research work is affected as well as the quality of teaching too affected and resulted in increased absenteeism. Acad-4 states

"...teaching has become a sort of a formality here in the university, they don't attend classes regularly"

Table 4, and Figure 3, displays a summary view and network view of the analysis of the data regarding RQ1.

Q.2 Why the implications regarding IL in universities are ignored by the management?

The participants were aware of the components of IL and its impact on the case organization. Meanwhile, when asked, why such implications of IL are being ignored, the participants had a lot of reasons to state. Acad-3 stated the lack of leadership and absence of [IC] policy for this ignorance.

Table 4: Data Display of Practices and Processes that Lead to the Creation of Intellectual Liabilities in the Case-University

| 1stParticipant	2nd Participant	3rd Participant	4thParticipant	5th Participant	6th Participant	7th Participant	8th Participant	9th Participant
Weak education	Garbage in garbage out	Enroll many students	No concrete policies	Shorter faculty	discouraging observation	system not supportive	Dirty politics	No money for education
Dissatisfaction in employees	Lack of quality	question of survival	Need professionalism	Cannot contribute to research	Degree distribution	influence of money	Demotivated	No salaries in time
Pressure from HEC	Student's dropout	Jugglery	Financial constraint	Humanly impossible	Do not have good labs	Resistance	An asset to liability	Fee structure
No funds	harsh treatment	Business thing	a job outside the country	Liability for department	the frog of a well	Delayed promotions	Injustice	Resistance
Political influence	Failing students	multiple universities	not properly encouraged	Do not supervise	Produced nothing but garbage	Addiction is the ideology	Political groups	Strikes
All for the money			Brain-drain	Garbage in, garbage out policies	No person to train	Political influence	Increase fees	
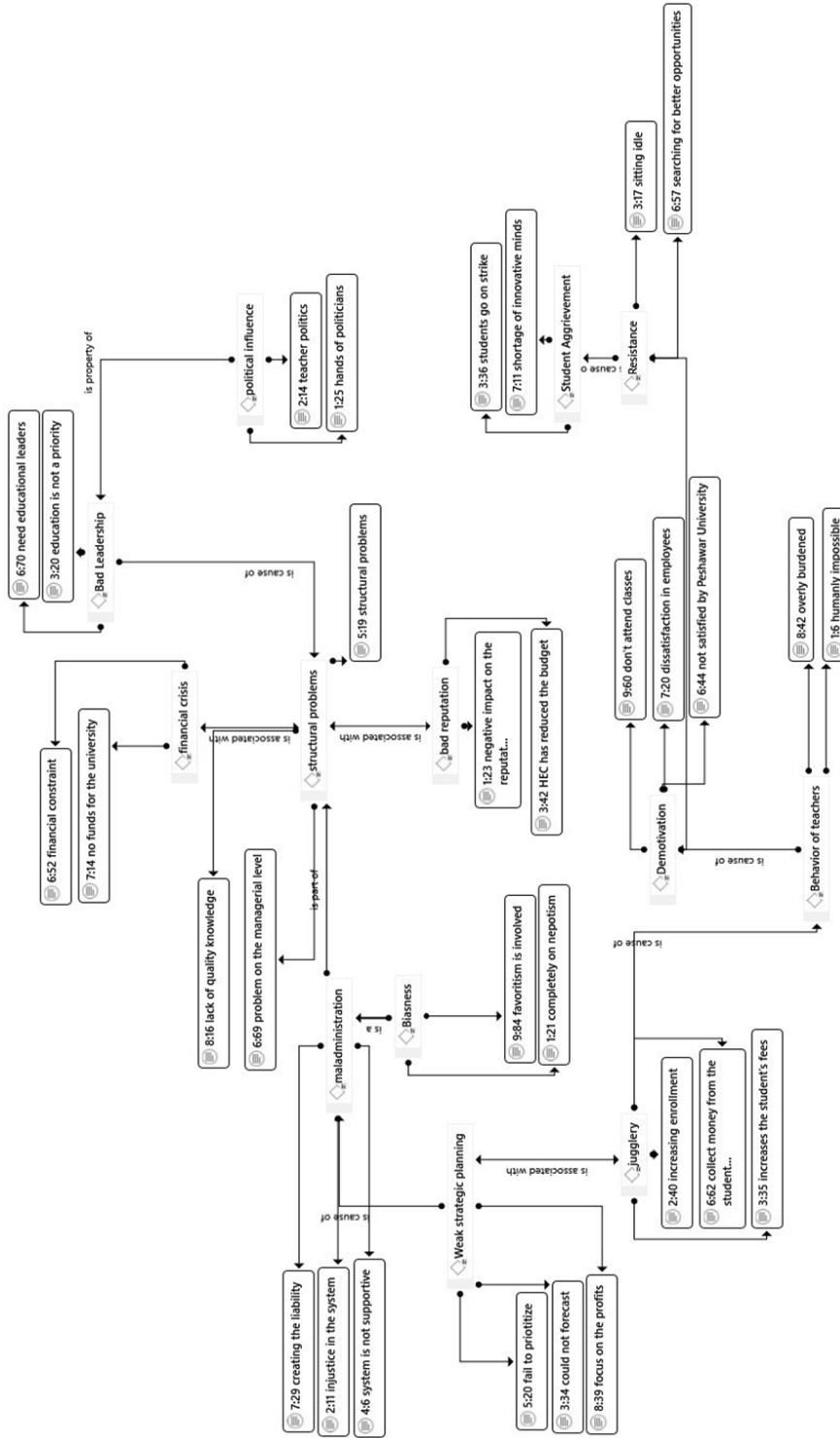
Figure 3: Network Display of Interview Data of Practices and Processes that Lead to the Creation of Intellectual Liabilities in the University

> *"There is a lack of leadership in the educational institutions, and they even don't have a concrete policy to utilize their [IC]. That's why on the management level, it has been ignored"*

Acad-6 provided a critical narrative including the lack of accountability, inadequate structure and technology and an incompetent management:

> *"There are [different] factors like, there is no forensic accountability, there is a lack of structure, technology [that] the administration lacks very much. And the management knows that they are responsible for creating the liability, hence they do nothing about it"*

Even if the management is not ignoring the implications, they have been unable to give priority to what is more important. The participant emphasized the fact that instead of creating a long-term solution, the short-term solution was initiated for improvement in the financial situation.

Acad-7 lamented on wrong priorities by the manangement as a reason of IL:

> *"The management fails to prioritize what is more beneficial for the university. The new programs that are initiated in the universities completely backfired. It is a waste and destroyed a properly working schedule"*

While a lot had been said on the lack of ability to manage, some participants justified the failure of management due to lack of financial support by government and lack of capacity. They associated public sector HEIs with the public aspirations and not money making. Acad-1 bemoaned that:

> *"Public universities cannot do self-financial management since we will have to shut some departments and then the society will react"*

However, Acad-2 attributed this decline to the incompetency of the organizational management

> *"I wouldn't say they are ignoring it. My gut feeling is, they [leadership & management] don't know how to cope with the mess"*

While Mngr-1 discussed the long-term existence of the problems and ignorance in the past by management:

> *"I would say about this current administration, that they inherited these problems, which were created during the past 5,6,7 years"*

Other than inherited problems, the management ignores such liabilities for the

Table 5: Data Display of Interview Data Regarding Management Ignoring the Implications of IL

| 1st Participant	2nd Participant	3rd Participant	4thParticipant	5th Participant	6th Participant	7th Participant	8th Participant	9th Participant
No forensic accountability	Fails to put the right person	Structures made in West	Mismanagement	Financial crisis	Favoritism	Slow system	Funding	Reduced influxes
Lack of structure	Fails to prioritize	Corridors of power	Lack of leadership	Nepotism	Personal Interest	Financial problems	Status quo	Education is not a priority
Creating the liability	More than the limit	Vicious poverty cycle	Ignored	Politicians	Do not have advanced skills	Society desires	Insecure	Not a small Institute
Administration lacks technology	Ignore the consequences	Short-term solution	Need educational leaders	Military influences	Lack of money	Business-oriented minds	No HEC support	Political pressure
	Focus on the profits		Need to improve	Leave some for my successor	Management problems			
				Secure their job	Political manipulations			
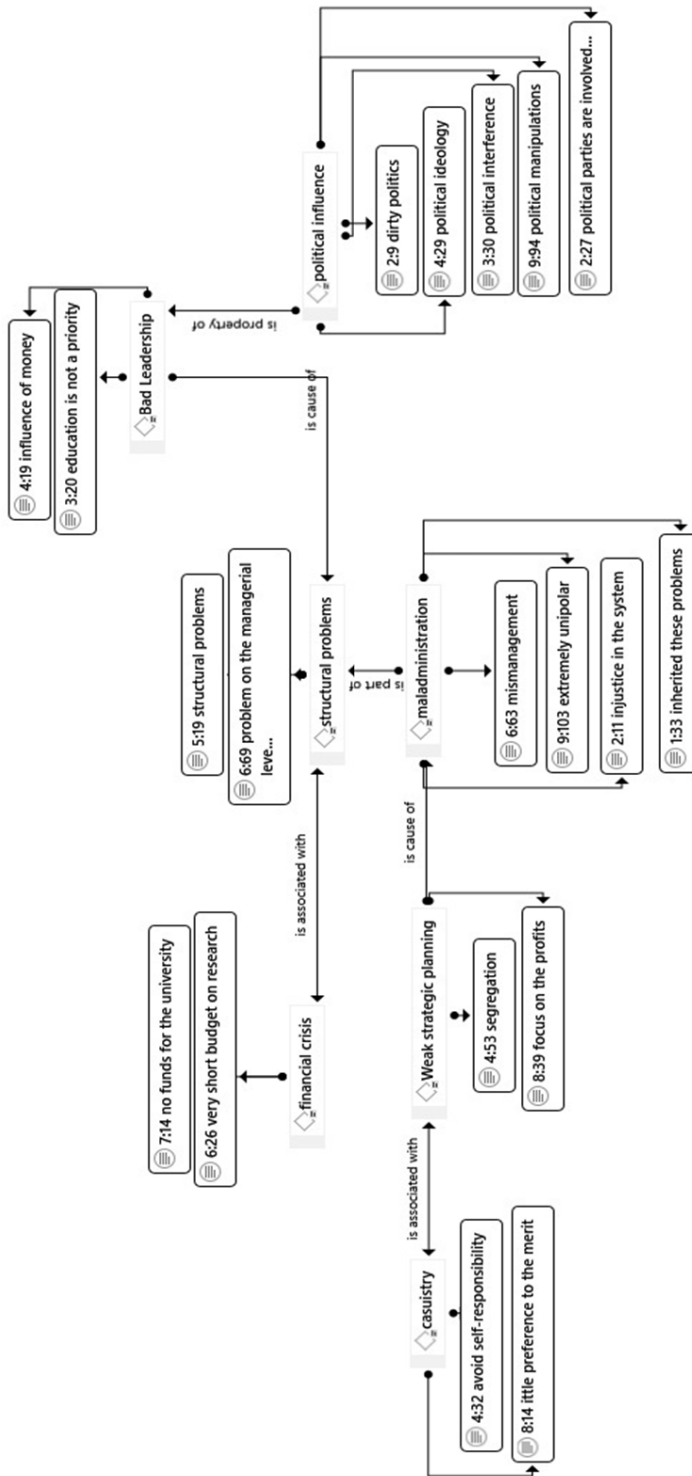
Figure 4: Network Display of Interview Data, to Examine the Interconnectedness Regarding Management Ignoring the Implications of IL

sake of senior employees of the institution who have much more influence than the younger ones who want to change. While proposing a new plan the management takes the seniors into account as the resistance of those employees is something they cannot afford. Acad-5 states:

> *"There is a gap between, the new generation and the old generation. They feel insecure from the new generation in a way that they are competent as well as qualified. So, they [the seniors] want to keep the status quo in one way or the other"*

And when there is a little effort to balance the odds then financial deficiency raise problems again. As Mngr-2 states:

> *"This is the dilemma that we are facing, we cannot increase the fees and we have not been assisted by the provincial government. This is the main issue of the university. Remember, public sector universities, you cannot run them without [support from government] finances"*

The participants were of different perspectives as some were totally against the management and some seem to defend them as they (management) are trying to resolve and still trying. The views of the participants have been summarized in the Table 5 and Figure 4.

4.3. Discussion

A university is considered the hub of knowledge, innovation, and creativity in the knowledge-based economy. The research intended to see the practices and processes of IC in one of the oldest and most reputed HEIs and what was causing IC to convert into IL. The analysis indicates that there is a strong linkage when it comes to a public university and politics which is one of the core reasons for IL creation. Meanwhile, the role of management is trivial in resolving the issues due to the current financial situation.

The data showed the acknowledgment of the faculty regarding each employee as an asset to the institution and the role of technology in making them an asset was equally acknowledged. Meanwhile, the data also showed that alliances and relations with the external and internal environment are important for a working environment. The results met the expectation in this regard and are coherent with the findings of other researchers like Veltri and Puntillo (2019).

But one of the most vital reasons for this research was to understand the reasons behind the conversion of IC into IL. A learning environment becomes a dream when the organization has poor leadership and a lack of strategic planning (Bovey & Hede,

2001), which was also the case in the organization due to its poor leadership. Similarly, there is a negative association between the political pressures and lack of financial support from the public sector. There is a decline in technology as well due to lack of funding and these factors are hampering the quality of education. The findings are relevant to the literature of Caddy (2000) and Giuliani (2013).

Financial issues were also responsible for ineffective initiatives, like enrollment of more students and overburdening the teachers, adversely affecting their commitment to their jobs which is shown by absenteeism. Absence is negatively related to job commitment and satisfaction (Uwannah, 2015) and the results show the validity of such claims.

Some new findings came into the light, like the effect of favoritism on the morale of employees was way more than anticipated. Absenteeism, unpunctuality, and favoritism did contribute to the unusual behavior of teachers but favoritism was the most powerful factor among these three which was earlier affirmed by Uwannah (2015) and it led them to damage the system rather than cope with them. The act of going against their organization starts from the feeling of being ignored, while the others are favored more than them (Hollinger & Clark, 1982). Hence gradually converting human capital into a human liability.

The final discussion comes towards why management ignores such liabilities. According to the analysis of the themes, the management has been ignorant, due to the financial crisis as a major cause. Such conclusions have been highlighted in the literature under the study of Stam (2009).

While on the other side, even if the management was not ignoring these liabilities, they were unable to prioritize what must be managed first. It should start with HC first (Adam & Urquhart, 2009; Monavvarian & Khamda, 2010)lack of IT skills and human capital impede the potential of IT investments in organizations in developing countries [Lee, J. (2001, because the university's performance is more affected by human capital, in comparison to structural capital and relational capital (Shehzad, Fareed, Zulfiqar, Shahzad, & Latif, 2014). Then the structural, climate and cultural aspects of an organization come in and all of them linked together make IC management effective (Nazari, Herremans, Isaac, Manassian, & Kline, 2011). Time and again, it has been proven that the poor prioritization by the management has led to institutional decline (Maenpaa & Voutilainen, 2012; Van Zyl, 2005) and the findings prove that point to be standing even in contemporary times.

5. Conclusion

The research aimed to explore the conversion of IC into IL and ignoring the

outcomes of such conversion by the managers in the HEIs. With this aim, the research adopted a single case study approach and utilizing ANT conducted qualitative research. Primary data was collected through semi-structured interviews and thematic analysis were used to analyze the data. The first research question intended to figure out the process and practices through which IC convert into IL and highlighting the value destruction process. Poor leadership is the major cause of destruction in this study as leadership was the bases of IL development in the first place. It all starts from a good spot, good leadership, good systems, and management, but over a long period, one bad decision leads to another and systematically the whole network goes down.

Since all components are networked like a web and are interlinked with each other, just because of poor leadership, a culture of favoritism develops over time and is impacted by political influences. Later follows a systematic series of disasters like demotivation among employees and casuistry (illogical arguments to get out of situations) by the management and then the jugglery (tricks to solve just current situations) which leads to student aggravation (strikes, demotivation, careless behaviors) and that leads towards a bad image for the university.

The second research question was to understand the reason behind the management's ignorance of ILs. While the data did show some ignorance on the management part, the biggest elements involved were maladministration, financial crisis (lack of funds), structural problems (technology and policies), and political influence. The above elements are so strong that they do not let management take any incentive for the betterment of the institution even if they want to.

The research concludes that IL play a very negative role in universities as it destroys a properly working environment and creates unsolvable problems. The concept of each component of IC being interconnected with others holds completely true for IL also, all it takes is just one component to convert and the rest will follow.

This research contributes towards an often-ignored topic in the IC research that is, IL and adds to the body of knowledge by developing a framework based on ANT to study IL through practices and processes in a university setting. Secondly at the policy level, it identified the importance of strategic management of HEIs and the importance of leadership and management of IC of these HEIs to deter its IC conversion into IL. HEIs should develop strategies to manage their IC and proactively search for the risk assessment of the conversion of IC into IL.

6. Limitations and Future Research Directions

Just like any other research, the current study has limitations that can expose possible directions for future research. First, this study utilized a small size purposive

sample from only one case organization, there is need for theoretical generalizability of the results to other public and private sector universities.

In future studies, a larger size of sample, drawn by adopting a purposive sampling procedure across public and private universities may facilitate researchers to generalize the results and provide even better answers to the research questions addressed in this study. Similarly, comparative analysis of public and private sector universities would be interesting to explore intellectual liabilities in public and private contexts and may entail more solid practical implications.

Second, this study has been conducted in the Pakistani context and its findings are not generalizable to other developing countries where universities might have different cultures and structures. It would be encouraging to replicate the current study in other developing countries and validate the findings concluded in this research.

References

Abernethy, M. A., Horne, M., Lillis, A. M., Malina, M. A., & Selto, F. H. (2005). A multi-method approach to building causal performance maps from expert knowledge. *Management Accounting Research*, *16*(2), 135–155. https://doi.org/10.1016/j.mar.2005.03.003

Abeysekera, I., & Guthrie, J. (2004). Human capital reporting in a developing nation. *British Accounting Review*, *36*(3), 251–268. https://doi.org/10.1016/j.bar.2004.03.00

AcademiaMag. (2019). 78% Pakistani Employers Dissatisfied With University Graduates, Reveals Survey. Retrieved November 19, 2019, from https://academiamag.com/78-pakistani-employers-dissatisfied-with-university-graduates-reveals-survey/

Adam, M. S., & Urquhart, C. (2009). No man is an island: Social and human capital in IT capacity building in the Maldives. *Information and Organization*, *19*(1), 1–21. https://doi.org/10.1016/j.infoandorg.2007.11.002

Amesse, F., & Cohendet, P. (2001). Technology transfer revisited from the perspective of the knowledge-based economy. *Research Policy*, *30*(9), 1459–1478. https://doi.org/10.1016/S0048-7333(01)00162-7

Anjum, D. (2019). Three Leading KP Universities go Bankrupt – RS-NEWS. Retrieved November 17, 2019, from https://www.researchsnipers.com/three-leading-kp-universities-go-bankrupt/

Bardini, T. (1997). Bridging the gulfs: From hypertext to cyberspace. *Journal of Computer-Mediated Communication*, *3*(2), 0–0. https://doi.org/10.1111/j.1083-6101.1997.tb00069.x

Barry, B., & Stewart, G. L. (1997). Composition, process, and performance in self-managed groups: The role of personality. *Journal of Applied Psychology*, *82*(1), 62–78. https://doi.org/10.1037/0021-9010.82.1.62

Beam, H. H. (1997). The New Organizational Wealth. In *Academy of Management Perspectives* (Vol. 11). Berrett-Koehler Publishers. https://doi.org/10.5465/ame.1997.9709231671

Bielenia-Grajewska, M. (2010). Actor-Network Theory in Intercultural Communication. *International Journal of Actor-Network Theory and Technological Innovation*, *1*(4), 53–69. https://doi.org/10.4018/jantti.2009062304

Bontis, N., Dragonetti, N. C., Jacobsen, K., & Roos, G. (1999). The knowledge toolbox:: A review of the tools available to measure and manage intangible resources. *European Management Journal*, *17*(4), 391–402. https://doi.org/10.1016/S0263-2373(99)00019-5

Bovey, W. H., & Hede, A. (2001). Resistance to organizational change: The role of cognitive and affective processes. *Leadership & Organization Development Journal*, *22*(8), 372–382. https://doi.org/10.1108/01437730110410099

Bowman, C., & Toms, S. (2010). Accounting for competitive advantage: The resource-based view of the firm and the labour theory of value. *Critical Perspectives on Accounting*, *21*(3), 183–194. https://doi.org/10.1016/j.cpa.2008.09.010

Bratianu, C., & Pinzaru, F. (2015). Challenges for the university intellectual capital in the knowledge economy. *Management Dynamics in the Knowledge Economy*, *3*(4), 609–627.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, *3*(2), 77–101. https://doi.org/10.1191/1478088706qp063oa

Brown, J. S., & Duguid, P. (1996). Universities in the Digital Age. *Change: The Magazine of Higher Learning*, *28*(4), 11–19. https://doi.org/10.1080/00091383.1996.9937757

Brunold, J., & Durst, S. (2012). Intellectual capital risks and job rotation. *Journal of Intellectual Capital, 13*(2), 178-195.

Bukowitz, W. R., & Petrash, G. P. (1997). Visualizing, measuring, and managing knowledge. *Research-Technology Management*, *40*(4), 24–31. https://doi.org/10.1080/08956308.1997.11671139

Caddy, I. (2000). Intellectual capital: Recognizing both assets and liabilities. *Journal of Intellectual Capital*, *1*(2), 129–146. https://doi.org/10.1108/14691930010377469

Caddy, I. (2001). Orphan knowledge: The new challenge for knowledge management. *Journal of Intellectual Capital*, *2*(3), 236–245. https://doi.org/10.1108/14691930110399987

Chiucchi, M. S., & Dumay, J. (2015). Unlocking intellectual capital. *Journal of Intellectual Capital*, *16*(2), 305–330. https://doi.org/10.1108/JIC-01-2015-0004

Clardy, A. (2005). Reputation, Goodwill, and Loss: Entering the Employee Training Audit Equation. *Human Resource Development Review*, *4*(3), 279–304. https://doi.org/10.1177/1534484305278243

Cresswell, K.M., Worth, A. & Sheikh (2010), A. Actor-Network Theory and its role in understanding the implementation of information technology developments in healthcare. *BMC Medical Informatics*

and Decision Making **10** (67). https://doi.org/10.1186/1472-6947-10-67

Cuganesan, S. (2005). Intellectual capital-in-action and value creation: A case study of knowledge transformations in an innovation project. *Journal of Intellectual Capital*, *6*(3), 357–373. https://doi.org/10.1108/14691930510611102

Cuganesan, S., & Dumay, J. C. (2009). Reflecting on the production of intellectual capital visualizations. *Accounting, Auditing & Accountability Journal*, *22*(8), 1161–1186. https://doi.org/10.1108/09513570910999274

Dealtry, R. (2008). Professional practice: Exploration of a contextual management framework for strategic learning alliances. *Journal of Workplace Learning*, *20*(6), 443–452. https://doi.org/10.1108/13665620810892102

Dumay, J.C. (2012). Grand theories as barriers to using IC concepts. *Journal of Intellectual Capital*, *13* (1), pp. 4-15.

Dumay, J., & Garanina, T. (2013). Intellectual capital research: a critical examination of the third stage. *Journal of Intellectual Capital*, *14* (1), 10-25

Dumay, J. (2013). The third stage of IC: Towards a new IC future and beyond. *Journal of Intellectual Capital*, *14*(1), 5–9. https://doi.org/10.1108/14691931311288986

Dumay, J., Guthrie, J., & Rooney, J. (2017). The critical path of intellectual capital, in Guthrie, J., Dumay, J., Ricceri, F., and Nielsen, C. (Eds). The Routledge Companion to Intellectual Capital, Routledge, London, pp. 21–39

Edvinsson, L., & Malone, M. S. (1997). Intellectual capital: realizing your company's true value by finding its hidden brainpower. *NY: Harper Business.*

Eisenhardt, K. M. (2016). *Building Theories from Case Study Research Published by : Academy of Management Stable URL : http://www.jstor.org/stable/258557 Linked references are available on JSTOR for this article : Building Theories from Case Study Research. 14*(4), 532–550.

Etzkowitz, H. (2003). Innovation in innovation: The Triple Helix of university-industry-government relations. *Social Science Information*, *42*(3), 293–337. https://doi.org/10.1177/05390184030423002

García-Ayuso Covarsí, M., Sánchez Muñoz, M., & Cañibano Calvo, L. (2004). Accounting for intangibles: a literature review. *Journal of Accounting Literature*, *19*, 41–79.

Garcia-Parra, M., Simo, P., Sallan, J. M., & Mundet, J. (2009). Intangible liabilities: Beyond models of intellectual assets. *Management Decision*, *47*(5), 819–830. https://doi.org/10.1108/00251740910960141

Gogan, L. M., Duran, D. C., & Draghici, A. (2015). Structural Capital - A Proposed Measurement Model. *Procedia Economics and Finance*, *23*, 1139–1146. https://doi.org/10.1016/s2212-5671(15)00503-1

Gowthorpe, C. (2009). Wider still and wider? A critical discussion of intellectual capital recognition, measurement, and control in a boundary theoretical context. *Critical Perspectives on Accounting*,

20(7), 823–834. https://doi.org/10.1016/j.cpa.2008.09.005

Greene, J. C., Compton, J. L., Whitmore, E., & Sappington, H. (1987). Strategies for Qualitative Data Analysis. *American Journal of Evaluation, 8*(4), 5–11. https://doi.org/10.1177/109821408700800401

Giuliani, M. (2013). Not all sunshine and roses: Discovering intellectual liabilities "in action". *Journal of Intellectual Capital, 14*(1), 127-144. https://doi.org/10.1108/14691931311289057

Giuliani, M. (2015). Rome wasn't built in a day… Reflecting on time, intellectual capital and intellectual liabilities. *Journal of Intellectual Capital, 16*(1), 2-19. https://doi.org/10.1108/JIC-02-2014-0018

Giuliani, M. (2016). Sensemaking, sensegiving and sensebreaking: The case of intellectual capital measurements. *Journal of Intellectual Capital, 17*(2), 218-237. https://doi.org/10.1108/JIC-04-2015-0039

Giuliani, M., & Chiucchi, M. S. (2019). Guess who's coming to dinner: the case of IC reporting in Italy. *Journal of Management and Governance, 1*(31). https://doi.org/10.1007/s10997-018-9432-x

Guest, G., Bunce, A., & Johnson, L. (2006). How Many Interviews Are Enough?: An Experiment with Data Saturation and Variability. *Field Methods, 18*(1), 59–82. https://doi.org/10.1177/1525822X05279903

Hammarberg, K., Kirkman, M., & De Lacey, S. (2016). Qualitative research methods: When to use them and how to judge them. *Human Reproduction, 31*(3), 498–501. https://doi.org/10.1093/humrep/dev334

Hanson, W. (1988). Mobilizing invisible assets. In *Journal of Economic Behavior & Organization* (Vol. 10). https://doi.org/10.1016/0167-2681(88)90065-0

Harvey, M. G., & Lusch, R. F. (1999). Balancing the intellectual capital books: Intangible liabilities. *European Management Journal, 17*(1), 85–92. https://doi.org/10.1016/S0263-2373(98)00065-6

Hassard, J., & Wolfram Cox, J. (2013). Can Sociological Paradigms Still Inform Organizational Analysis? A Paradigm Model for Post-Paradigm Times. *Organization Studies, 34*(11), 1701–1728. https://doi.org/10.1177/0170840613495019

Hollinger, R., & Clark, J. (1982). Employee Deviance: A response to the perceived quality of the work experience. *Work and Occupations, 9*(1), 97–114. https://doi.org/10.1177/0730888482009001006

Januskaite, V., & Uziene, L. (2018). Intellectual capital as a factor of sustainable regional competitiveness. *Sustainability (Switzerland), 10*(12). https://doi.org/10.3390/su10124848

Khan, A. A., & Nouman, M. (2015). *ICM in the Public Sector of Pakistan: Theoretical Framework for 'Third Wave'* Paper presented atthe 7th European Conference on Intellectual Capital (ECIC 2015), Cartagena, Spain.

Khan, A., & Nouman, M. (2019). Intellectual Capital in Practice in the Public Sector: Developing a Conceptual Framework for the 'Third Wave'. *Business & Economic Review, 11*(2), 1-18.

Kabele, J. (1996). Social Constructivism. *Czech Sociological Review, 32*(3), 317–338. https://doi.org/10.

13060/00380288.1996.32.3.06

Kontić, L., & Čabrilo, S. (2009). A strategic model for measuring intellectual capital in Serbian industrial enterprises. *Economic Annals*, *54*(183), 89–118. https://doi.org/10.2298/EKA0983089K

Kupi, E., Sillanpää, V. & Ilomäki, S.K. (2008), "Risk management of intangible assets", paper presented at the IFKAD - International Forum on Knowledge Asset Dynamics, 26-27 June 2008, Matera, available at: http://www.knowledgeasset.org/IFKAD.

Latour, B. (2006). *An Introduction to Actor-Network-Theory*.

Law, J. (1992). Notes on the theory of the actor-network: Ordering, strategy, and heterogeneity. *Systems Practice*, *5*(4), 379–393. https://doi.org/10.1007/BF01059830

Lewis, S. (2015). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. In *Health Promotion Practice* (Vol. 16). SAGE Publications Inc. https://doi.org/10.1177/1524839915580941

Maenpaa, I., & Voutilainen, R. (2012). Insurances for human capital risk management in SMEs. *Vine*, *42*(1), 52–66. https://doi.org/10.1108/03055721211207761

Marshall, M. N. (1996). The key informant technique. *Family Practice*, *13*(1), 92–97. https://doi.org/10.1093/fampra/13.1.92

Martí, J. M. V. (2003). In Search of an Intellectual Capital General Theory. *Electronic Journal of Knowledge Management*, *1*(2), 213–226.

Matos, D. (2020). *Bridging Intellectual Capital, Sustainable Development and Quality of Life in Higher Education Institutions*.

Mcmahon, M. (1997). Social constructivism and the World Wide Web - a paradigm for learning. *What Works and Why : Reflections on Learning with Technology : ASCILITE*, 1–7. Retrieved from http://www.ascilite.org.au/conferences/perth97/papers/Mcmahon/Mcmahon.html

Monavvarian, A., & Khamda, Z. (2010). Towards successful knowledge management: people development approach. *Business Strategy Series*, *11*(1), 20–42. https://doi.org/10.1108/17515631011013096

Muniesa, F. (2015). Actor-Network Theory. *International Encyclopedia of the Social & Behavioral Sciences: Second Edition*, 80–84. https://doi.org/10.1016/B978-0-08-097086-8.85001-1

Nazari, J. A., Herremans, I. M., Isaac, R. G., Manassian, A., & Kline, T. J. B. (2011). Organizational culture, climate, and IC: An interaction analysis. *Journal of Intellectual Capital*, *12*(2), 224–248. https://doi.org/10.1108/14691931111123403

Nisar, A. (2019). Challenges for Higher Education System in Pakistan. Retrieved November 1, 2019, from Pakistan & Gulf Economist website: https://www.pakistaneconomist.com/2019/01/21/challenges-for-higher-education-system-in-pakistan/

Noriega, F. M., Heppell, S., Bonet, N. S., & Heppell, J. (2013). Building better learning and learning

better building, with learners rather than for learners. *On the Horizon*, *21*(2), 138–148. https://doi.org/10.1108/10748121311323030

O'Donnell, A. M., & King, A. (2014). *Cognitive Perspectives on Peer Learning* (A. M. O'Donnell & A. King, Eds.). Mahwah, NJ: Routledge. https://doi.org/10.4324/9781410603715

Ordóñez de Pablos, P. (2003). Intellectual capital reporting in Spain: A comparative view. *Journal of Intellectual Capital*, *4*(1), 61–81. https://doi.org/10.1108/14691930310455397

Ozanne, J. L., Strauss, A., & Corbin, J. (1992). Basics of Qualitative Research. In *Journal of Marketing Research* (Vol. 29). https://doi.org/10.2307/3172751

Palla, L., Higgins, J. P. T., Wareham, N. J., & Sharp, S. J. (2010). Challenges in the use of literature-based meta-analysis to examine gene-environment interactions. *American Journal of Epidemiology*, *171*(11), 1225–1232. https://doi.org/10.1093/aje/kwq051

Penman, S. H. (2009). Accounting for intangible assets: There is also an income statement. *Abacus*, *45*(3), 358–371. https://doi.org/10.1111/j.1467-6281.2009.00293.x

Rehman, H., & Khan, D. N. (2014). Flaws in Pakistan's Educational System. *Abasyn University Journal of Social Sciences*, *4*(1), 70–83. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=a9h&AN=74740442&site=ehost-live&scope=site

Reiche, B. S., Stahl, G. K., Mendenhall, M. E., & Oddou, G. R. (2016). Readings and cases in international human resource management: Sixth edition. *Readings and Cases in International Human Resource Management: Sixth Edition*, 1–504. https://doi.org/10.4324/9781315668703

Saldaña, J. (2009). The Coding Manual For Qualitative Researchers London. In *SAGE Publications Ltd* (Third, Vol. 21).

Sánchez-Prieto, J. C., Huang, F., Olmos-Migueláñez, S., García-Peñalvo, F. J., & Teo, T. (2019). Exploring the unknown: The effect of resistance to change and attachment on mobile adoption among secondary pre-service teachers. *British Journal of Educational Technology*, *50*(5), 2433–2449. https://doi.org/10.1111/bjet.12822

Santis, F., & Giuliani, M. (2013). A look on the other side: Investigating intellectual liabilities. *Journal of Intellectual Capital*, *14*(2), 212–226. https://doi.org/10.1108/14691931311323850

Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research Methods for Business Students 7th Edition 2015 (Mark N. K. Saunders, Philip Lewis, Adrian Thornhill).*

Senge, P. m. (1997). The fifth discipline. *Measuring Business Excellence*, *1*(3), 46–51. https://doi.org/10.1108/eb025496

Shehzad, U., Fareed, Z., Zulfiqar, B., Shahzad, F., & Latif, H. S. (2014). The Impact of Intellectual Capital on the Performance of Universities. *European Journal of Contemporary Education*, *10*(4), 273–280. https://doi.org/10.13187/ejced.2014.10.273

Shimmi, Y., & Yonezawa, A. (2015). Japan's "top global university" project. International Higher Education, (81), 27-28.

Sidle, C. C., & Warzynski, C. C. (2003). A New Mission for Business Schools: The Development of Actor-Network Leaders. *Journal of Education for Business*, *79*(1), 40–45. https://doi.org/10.1080/08832320309599086

Silver, C., & Lewins, A. (2014). Using Software in Qualitative Research: A Step-by-Step Guide. In *Using Software in Qualitative Research: A Step-by-Step Guide*. 1 Oliver's Yard, 55 City Road London EC1Y 1SP: SAGE Publications Ltd. https://doi.org/10.4135/9781473906907

Sims, B. H. (2007). RETRACTION: Book Review: Latour, B. (2005). Reassembling the Social: An Introduction to Actor-Network-Theory. Oxford: Oxford University Press. Verbeek, P. (2005). What Things Do: Philosophical Reflections on Technology, Agency, and Design. Trans. R. P. Cr. *Science, Technology, & Human Values*, *32*(5), 624–632. https://doi.org/10.1177/0895904805303206

Smith, I. (2006). Continuing professional development and workplace learning - 15: Achieving successful organizational change - Do's and don'ts of change management. *Library Management*, *27*(4–5), 300–306. https://doi.org/10.1108/01435120610668232

Stam, C. D. (2009). Intellectual liabilities: Lessons from The Decline and Fall of the Roman Empire. *Vine*, *39*(1), 92–104. https://doi.org/10.1108/03055720910962470

Strebel, P. (2009). Why do employees resist change? *IEEE Engineering Management Review*, *37*(3), 60–66. https://doi.org/10.1109/EMR.2009.5235497

Sveiby, K. E. (1997). *The new organizational measuring knowledge-based assets*. Berrett-Koehler Publishers, 1997.

Tadaki, M., & Tremewan, C. (2013). Reimagining internationalization in higher education: International consortia as a transformative space? *Studies in Higher Education*, *38*(3), 367–387. https://doi.org/10.1080/03075079.2013.773219

Teixeira, J., Jeremie, A., & Gresham, J. (2017). Why education infrastructure matters for learning. Retrieved from https://blogs.worldbank.org/education/why-education-infrastructure-matters-learning

Thomas, G. (2020). Case study. *SAGE Research Methods Foundations*, *1*(10), 9–20. https://doi.org/10.14260/jadbm/2015/50.Imai

Tsai, H. H., & Lu, I. Y. (2006). The evaluation of service quality using generalized Choquet integral. *Information Sciences*, *176*(6), 640–663. https://doi.org/10.1016/j.ins.2005.01.015

UOP. (2020). University of Peshawar. Retrieved October 2, 2020, from http://www.uop.edu.pk/about/

Uwannah, N. (2015). Absenteeism, Favouritism, and Tardiness as Predictors of Job Deviance in Academia: The Nigeria Experience. *Journal of Social Sciences and Humanities*, *1*(2), 75–81. Retrieved from http://www.publicscienceframework.org/journal/jssh

Van Zyl, C. R. (2005). Structural capital management creates sustainable competitiveness and prolonged

first-mover advantage. *Acta Commercii*, *5*(1). https://doi.org/10.4102/ac.v5i1.70

Veltri, S., & Puntillo, P. (2019). On intellectual capital management as an evaluation criterion for university managers: a case study. *Journal of Management and Governance*. https://doi.org/10.1007/s10997-019-09461-5

Vugt, M., & Hardy, C. L. (2010). Cooperation for reputation: Wasteful contributions as costly signals in public goods. *Group Processes and Intergroup Relations*, *13*(1), 101–111. https://doi.org/10.1177/1368430209342258

Yammarino, F. J., & Bass, B. M. (1990). Transformational Leadership and Multiple Levels of Analysis. *Human Relations*, *43*(10), 975–995. https://doi.org/10.1177/001872679004301003

Yin, R. K. (2013). Applications of case study research. In *Applied Social Research Methods Series* (Vol. 34). https://doi.org/10.1097/FCH.0b013e31822dda9e