

# Systematic Literature Review of Intellectual Capital Components (Multi-View)

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## Abstract

Global attention has systematically shifted from industrial and retail economy to an information-age economy, meaning that the global economy has transited from the physical capital-based industrial economy to an intellectual capital-based economy. It is considered that the effective use of intellectual capital components which primarily includes knowledge, intellectual property, and relationships. This study is motivated by concerns regarding the intangible nature of intellectual capital. The study focuses mainly on reviewing the relationship between intellectual capital components (human capital, structural capital, relational capital, and social capital). It relies on one of the seminal intellectual capital conceptualizations and from the contingency perspective to determine the effect of culture and trust on the level of the other component of intellectual capital. The outcomes of this study provide evidence of the relationship of culture with human and structural capital. It is also expected that a greater level of trust will increase the level of intellectual capital.

**Keywords:** Culture, Trust, Human Capital, Structural Capital, Relational Capital, Social Capital.

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## I. INTRODUCTION

The financial crises experienced in recent years have brought about much economic depression in industrialized countries since the Second World War. As a result, many banks have gone bankrupt while some survive on a government bailout, leading to a significant loss of firms' profits and share value due to defaults on loans. It also caused higher unemployment and increased public debts [1]. Many banks were unable to provide financial services for its customers in all types of banking activities. In this concern, shareholders, staff, and customers have considered innovation as a new way of wealth creation by owing to its significant role in improving the efficiency of firms [2].

Considering various levels of competition and environmental uncertainty, it has become necessary to focus on innovative solutions as the modern method to grow and survive in the banking sector [3].

Some interruption is noticed when describing the definition of "intellectual capital," which is viewed as non-material resources on a broader context, shaping its reporting, significance, elements, and dealing. For example, describing complete items, understood by the people in an organization, and help them to achieve surpetition [4] are known as a firms' data value [5]. Many scholars considered intellectual capital knowledge as intellectual property facts and

figures, and institutional experiences [6][7]. Intellectual capital may be used to achieve wealth by expanding business assets side by side with improving employees' awareness, skills, and perceptions as non-sensorial and intangible properties [8]. The definition of the intellectual capital differed in terms of its scale. Therefore, as an organization's information, intellectual capital may be used to generate extra advantages or overall items, understood by the citizens in a company, in other words, to achieve sur-petition. Though, [9] discussed the probability of formalizing, controlling, and enabling intellectual content to generate more valuable properties.

Therefore, he regarded the intellectual capitals as the gap between an enterprise's ledger interest and the expected value to pay for it. Intellectual capital is considered as a static aspect of knowledge [10] It is a passive, measurable, classified, potentially having the ability to generate values. Numerous scholars have considered four interrelated intellectual capital components which are human capital, structural capital, relational capital, and social capital [11] three dimensions of intellectual capital taxonomy had been established as an emergent standard [12]. However, scholars are still arguing about what intellectual capital encompasses in real. Human capital is considered an indispensable part of intellectual capital since, without humans, there could not be any intellectual capital. [13][14] mentioned that developing human capital paves the way for the improvement of institutions' capital to improve other interrelated capitals for better performances.

Similarly, it has been found that human capital is the most important component of intellectual capital, accounting for more than 50 % of its value [15]. While, Relational capital reflects dependency, which can be found in either horizontal or vertical shapes, either down or upstream positions. Such dependence forms various types of cooperation/collaboration mechanisms in a variety of settings. Social capital

refers to embedded interactional knowledge which specifies the nature and level of interaction among its members. The primary function of social capital is enabling the gathering and distribution of knowledge across an institution. Also, it allows interactions with other communities and institutions[16]. However, innovation remains a commonly referenced concept in social science. Still, the main ambit of innovation concept focuses on how to create new outcomes that would improve organizational performance and sustain competitive advantage.

### **Research Questions**

To the current research problem, this research aims to investigate the influence of two intellectual capital antecedents' components' culture and trust' on the main intellectual capital components. The study intends to inspect the development of the relationship between intellectual capital and innovation performance in the banking sector. Hence, the research questions have been developed to guide the stages of the current investigation.

1. What are the influences of the antecedent variables of (culture & trust) on the main intellectual capital components?
2. What are the influences of human capital on relational and structural capitals?

### **II. SYSTEMATIC REVIEW PROCEDURES**

This section presents the approach to the systematic review protocol based on Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) employed in this work. PRISMA is an evidence-based minimum set of items that helps the researcher in reporting a range of systematic reviews and meta-analyses. A brief discussion of the systematic review method, the study selection, search, information sources, eligibility criteria, data collection process was presented in the following subsections.

The extensive literature has been attempted to improve the understanding of the antecedent factors which directly or indirectly affect the intellectual capital [21]. To conduct an impartial survey of the literature, a detailed analysis of a systematic review of literature is conducted to understand its use and highlight the main components of intellectual capital. Based on the literature, a large strand of studies identified the common factors of intellectual capital (IC), the main components of intellectual capital. Therefore, this study is a systematic review to protocols the collect and summarize the empirical evidence from the literature that fits the context.

Moreover, it is necessary to endure more useful and cited data from reliable sources to get a better understanding of existing studies. During the systematic review procedures, the study has gone through different sources of databases. Peer-reviewed literature and journals were the key sources of data and information about the dimensions of intellectual capital. The Scopus, Science Direct (SD), Emerald, and Web of Science (WoS) were used as base search databases. The selected studies discussed various dimensions and the application of intellectual capital in different areas of the study and different countries. The key terms used during the search criteria are presented in Fig 1.

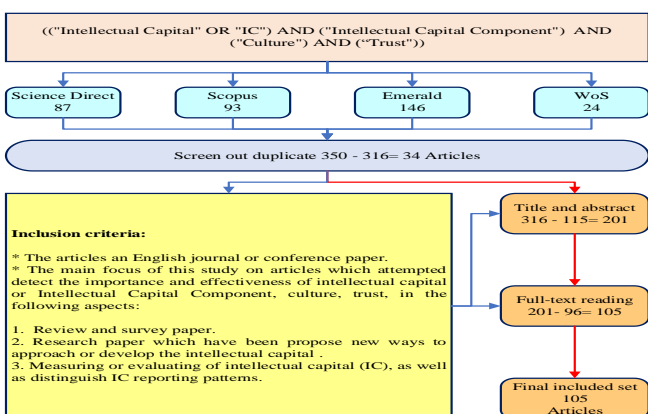


Fig: 1 Flowchart of Study Selection, Including the Search Query and Inclusion Criteria

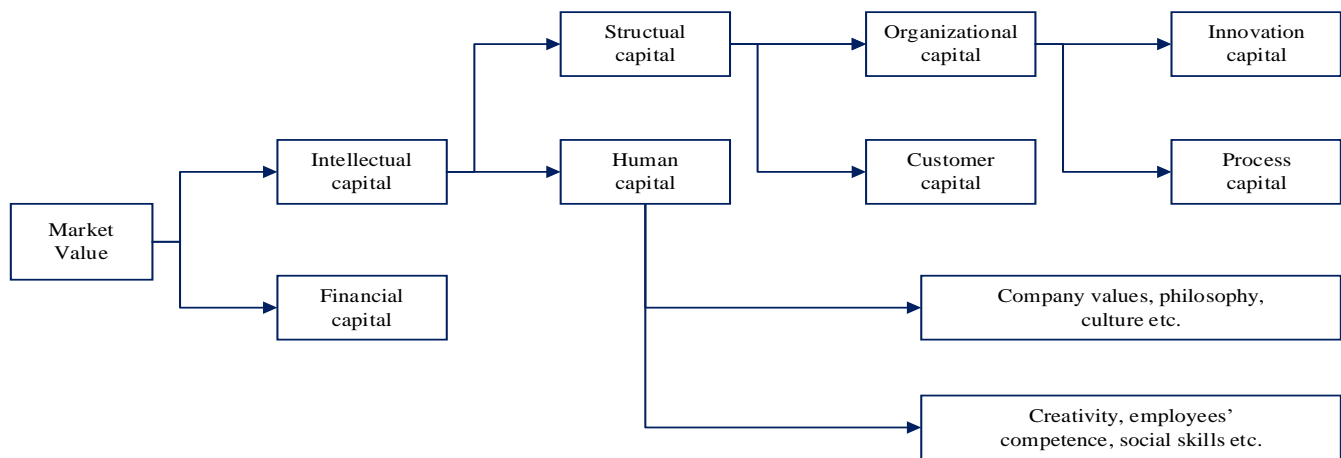
### III. INTELLECTUAL CAPITAL (IC)

The intellectual capital was already established, as per usage and use, over the last two decades in the various contexts. [31] provided the influential and generally recognized interpretation in intellectual capital literature, and [29] illustrated it. It is a crucial concept of intellectual capital. The intellectual capital was split into three primary components: HC, SC, and RC. Such elements are recorded in helping to establish corporate principles [34]. The intellectual capital, along with intellectual capital and organizational capital, is often known as the economic importance of the enterprise. [37] have also stated that because of its ability to provide extensive and usable information, the intellectual capital plays a significant role in developing organizational principles. Researchers typically believe that intellectual capital plays a significant function by leveraging information to build and derive business interest. This expertise consists of not just the employers of the enterprise as well as the technical details generated by the company in the context of a network [35]. [39] also defines human capital as a key aspect of the valuation of the business industry. In general, intellectual capital is viewed as a multifaceted philosophy to build values through information, expertise, and experience [35]. As a result, the research on intellectual capital is split into three sections, namely intellectual capital and structural and RC, which are embedded in a variety of organizational skills [29].

Depending from the above description in current literature, human capital and all of the intangibles belonging to a company itself, such as policies, culture, licenses, credibility, images, brand, process, administration for organisation., are described in this study as an integral part of the organization's market worth, along with the economic resources This also applies to the partnerships between the company and other

participants like consumers and suppliers.  
Fig:Error! No text of specified style in

document. displays the market value of intellectual capital.



Source: Adapted from [41].

Fig:Error! No text of specified style in document. Market Value of Intellectual Capital

The thorough literature study uncovered several key facts. First of all, a comprehensive analysis stressed that the definition would be viewed in parsimonious terms from a multifaceted viewpoint of intellectual capital. Moreover, the intellectual capital's multi-dimensional perspective centered on the four main value building elements, namely human capital (HC), structural capital (SC), social capital (SOC), and relation capital (RC). Secondly, human resources (HC) relates to the organization's human resource qualities such as competence, skills, and experience. Second, throughout the form of records, processes, and policies, systemic resources (SC) is the organization's information base. Third, social capital means the portion, which includes the practices of the organizational members through informal contact. Therefore, the resources dimension underlines the information base of the organization's partnerships with external partners, i.e. suppliers and clients. Such is simply symbolic of nature that organizations are capable of creating and manipulating strength, structure, community, and external collaborators of human beings [26] are focused on information and experience.

A wide variety of literature has also shown that researchers discover some aspect of intellectual

capital from a multifaceted viewpoint in line with their desired objectives [36] this research adopts the conceptualization suggested by [45] to explore the multi-dimensional perception of intellectual capital. Two ancient structures-trust and culture-served a critical function as two important engines of the other elements of intellectual capital. The human capital phenomena may be reduced by three parts, reported by [45]. The nature, the function, the complexity, and codification difficulties of each variable are taken into account. Some of the research groups fostered the essential need to create a foundation for the historical constructions that are necessary for efficient production for intellectual capital [45]. Besides, the fourth dimension of social capital is expandable in comparison to three previous definitions, i.e. human capital, structural capital, and relational capital [29].

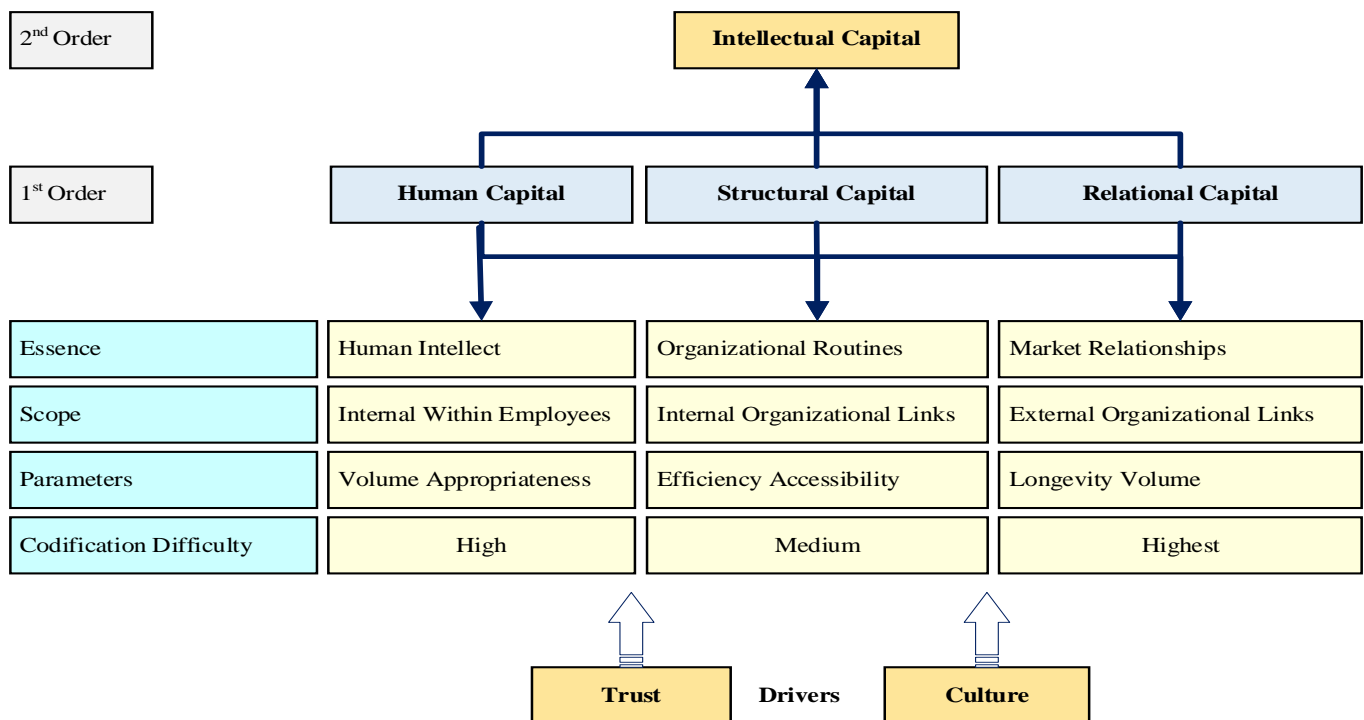
This research integrates culture and trust with four main intellectual capital elements in one analysis model [49][50] which relate to a body of information in various ways, i.e. the maximization of productivity and the correct distribution of resources. Top management may better recognize, collect, and analyze various sources of knowledge by recognizing specific elements of intellectual

capital. The assessment of this understanding in all dimensions would inevitably have a beneficial impact on results. The total benefit gained from this study of the intellectual capital measurements opens the way for management practices and shows the safest way to maintain effective and sufficient resource allocation.

Fig . Each phenomenon is illustrated in consideration of its essence, parameter, scope, codification difficulty. [51] also highlighted the role of the two drivers as considered due to their influence on intellectual capital development. Some other intellectual capital scholars have recently advocated the need for developing a framework that can be efficient for intellectual capital development [26] [37] [50] [51]. Three general intellectual

#### IV. INTELLECTUAL CAPITAL COMPONENTS (MULTI-VIEW)

To satisfactorily achieve the aim of a multi-dimensional view of intellectual capital, the conceptualization presented by [51] has been adopted in this study. In the model of the adopted conceptualization, two antecedent constructs (trust & culture) play a major as two supporting drivers of the other intellectual capital dimensions. As per Bontis, the intellectual capital phenomenon could fall into three components, as shown in capital components (Human Capital, Structural Capital, and Relational Capital), in addition to a fourth dimension (Social Capital), have been considered to address intellectual capital from a multi-perspective as earlier discussed. These four components of the intellectual capital are explained in the following subsections.



Source: Adapted from [51]

Fig 3: Intellectual Capital Conceptualization

#### Structural Capital (SC)

The structural capital clarifies the definition and values that bind the citizens of the organisation.

This relates to the procedures and processes that the company built and retained for the progress of the information flow in the technical blueprint [27]. Found that structural capital is an accumulation of



the company's expertise, including specific information, operational development, corporate culture, product growth, IT, and creativity. [52] described the business as a whole and stated that it continues with the organization even when the individual exits the business. [53] noticed that the most important aspects of determining intellectual capital are structural capital, as they are affected by several variables, such as society and behaviour. Therefore, the most similar component to absorbent efficiency is structural capital. Throughout the case of absorbent performance, it is founded on a static principle and uses proxies to calculate absorbent performance. While several scholars have followed the R&D expense formula to calculate, for example, structural capital [56] R&D spend was often used to assess absorption.

Structures for promoting the connection to the abuse of research capital include structural capital [57]. The framework extends from key elements of an organisation, like licensing, copyrights, and databases, to fulfilling unfavourable accomplishments, culture, availability, and trust among employees, for example. This capital is derived from frameworks generated by companies for a while and then will remain undergone after people have left [58]. Consequently, high structural capital organisations should have a healthy culture that encourages their participants to look for fresh concepts, learn them, and grow those [59]. Aggressive information, formats, systems of records and permits, techniques, and styles were created by the company once again. Basic resources also include all NIRs inside the data-based enterprise, authoritative charts, rules, procedures, and plans, and this for a material value-enhancing operating benefit [40]. The capital structure includes the organization's plans, models, budgets, PCs, and working climate [58]. This can be found somewhere, on the other hand. As it is, a coalition is the synthesis of the existing entity and organizations. The corporation creates its innovation, constructs frameworks, and establishes other corporate practices. Therefore, the basic

resource ensures that the company will meet its customers' needs. Late inquiries suggest that the business should be more clearly conducted along with the trained workers to have effective, skilled management [60].

### **Relational Capital (RC)**

Relational Capital (RC) is known as the corporate interest of firms and individuals. [59] found that the relational capital comprises campaigning, external stakeholder, client, distributor, and supplier collaboration and partners. This partnership also illustrates the entire theme of relational capital in context, as opposed to those that only analyse consumer resources [62].

The relational capital was perceived to be the foundation of mutual behaviour and behaviours in culture by other scholars [63]. A well-established RC of companies enhances the quality of the companies' members and improves the exchange of information between partners. RC is a crucial element to promote this behaviour in terms of contact and knowledge sharing. Researchers said that businesses with high relevant resources could increasingly meet and integrate consumer requirements into their growth, ensuring that anticipated customer demands and patterns are forecasts [62]. Having a positive partnership with the clients plays a major role in increasing consumers' trust, which in effect impacts business efficiency.

With SMEs, in particular, and big corporations in general, relationship capital is an important intangible commodity [65]. This allows the company to deal with others and conclude collaborative arrangements that will help businesses to perform better. This allows the company to enhance its performance with high relationship capital. The study explores the RC as internal, external, and forward ties such as connections with associates, external customers, and networks with suppliers and distributors and ties with others. This considers that RC has a major position in corporate

success and affects human capital and consumer interactions [66].

Relational capital includes knowledge in all respects defined by the relationship with consumers, rivals, suppliers, memberships, or the government. It is a crucial determinant in changing the valuation of wisdom income. All the relations between other entities and organization are included in relational capital. They incorporate customers, operators, employees, suppliers, administrative experts, groups, borrowers, financial experts [37]. Social capital, ties are split into two groups, which have been illustrated by their motivation: firstly, partnerships that are ultimately extraordinarily structured through arrangements and commitments with employers, vendors, or principals' accomplices, and, secondly, informal connections. [66] stated that new definitions had created a previous idea of customer working capital to relational capital, along with all information about the relationships between customers and supporters, providers, affiliates, and government. Consumer capital is called an institutional scaffold and organizer and a driving factor for adjusting the university cash-flow to demonstrate gratitude. The efficiency and effectiveness of consumer interactions were embedded in this resource [67].

### **Human Capital (HC)**

Several pieces of research have studied and shown that intellectual capital is exceptional for hierarchical efficiency. Human capital is one of them [68]. Human capital is an assortment of genetic ethnicity, mental state, learning, and personal involvement in their lives and practices. In comparison to specific resources or equipment, HR is the most valuable tool for every company [69]. Nevertheless, it was also recognized by the organisations as the most overlooked tool. HC should be considered with interaction as a

significant resource and risk. Human capital applies to the knowledge, expertise, and experience of professionals or leaders that are aligned with their particular goal of adding respect [40]. Human capital may be defined as well-being, understanding, motivation, and knowledge, whose success is called an end in itself as it attracts and honours the holder. The representative health is also listed in developing both undeniable and intangible resources across the continuous age of learning and thinking. Much like structural capital, whether it is recorded in a substantial arrangement or is integrated within the association's frameworks and mechanisms, intellectual capital is continuously controlled by the individuals who possess it [70]. The financial segment needs a different age, particularly for banks, of experts who are more customer-driven, innovation-oriented, all the more qualified, adaptable, skilled, and skilled with today's more comprehensive range of capabilities. So far as globalization is concerned, human capital has now become a necessity and not a resource simply [71].

The creation of comparative advantage requires human capital [68]. HC is used in organizations as a human aspect that explains anything relevant to workers, such as knowledge, abilities, and expertise [70]. Once workers leave the corporation, they consider the institution a diacritical attitude and do not contribute to the company. HC consists of various factors and elements. It varies from categorization to categorization. [73], for example, relates to the HC elements of behaviour, task solving, coordination, experience, knowledge,

imagination, commitment, and inspiration. HC contains, thus, much of the confidential information in an enterprise's minds. [42] suggested that, because of the shortage of other services, HC is considered an important tool, particularly in small firms. This has been clarified that only the growth of HC, contributing to the creation of advanced expertise, is the only way to build companies-specific tools.

HC is also an important tool to build a strategic edge and expand employment in small and medium-sized businesses. At the same time, some scholars believe that sales are, under various situations, the best indicator of progress. Some assume that the most significant factor is job development [74]. [75] also established and accepted HC as the expertise and knowledge of workers and administrators, whereas other scientists refer to HC as trained citizens [76]. The first is HC in the corporate context, and the second is HC in particular. There are two viewpoints. The researchers also discovered that the HC measurements vary. The two main forms of human capital, which was inside the structure and the firm's practice and also intellectual capital and market affairs, is the implicit information that is in the mind of the worker [77]. The word HC growth, therefore, implies developing and enhancing the expertise, experience, and awareness of employees of the business.

The organization's primary duty is establishing and safeguarding the HC. Therefore, HC intangibility is rooted in the organisation's resources, whereas

institutional capital intangibility is grounded in the business [78]. Researchers such as [70] stressed on the expenditure in HC and HC funds can be distinguished from a competitive approach to HC. Some scholars looked at the role of HC in social capital development [79] and crucial factors for decision-makers and business owners [80]. HC has greater chances of rising in big firms than in SMEs, and so researchers calculate HC in large and small companies utilizing specific approaches. For starters, [72] also identified considerable opportunities for HC in new industries, including market preparation, formal education, and entrepreneurship, to concentrate on the time of social interaction, rather than on skills gained.

HC has also been paid a lot of resources to its impact on different behaviours and factors of previous studies. For instance, the economic valuation of firms based in the training of their workers was studied by [70]. The findings indicate that HC investments will have greater financial benefits for business, particularly when additional investments have been made in physical capital and other activities. Past work then investigates whether HC occurs or not, or the development of HC services. Several economists mentioned how firms were doing.

### **Social Capital (SOC)**

In certain instances, inter- and external collaboration and exchange of information across social networks is necessary to incorporate and synthesize employees' knowledge [81]. Social capital is defined as the sum of the actual and potential resources embedded within, available



through, and derived from the network of relationships possessed by an individual or social unit [79]. Researchers believe that the results of social capital gained through the exchange of implicit and explicit knowledge, mostly through networks inside organizations have significant breakthroughs and competitive advantages [43]. Social capital is a known idea as a valuable resource to protect, safeguard, and empower societies [43]. In solving coordinated needs and helping them succeed in today's dynamic environment, SOC plays a significant role. This is SOC promotes the sharing of knowledge, the creation of value, competitive edge, greater and quicker performance, and better growth in the business [44]. Current and potential assets in a system of relations owned by individuals and social units are accessible and derived [83]. The three factors of the SOC, namely structural capital, relation capital, and cognitive capital, were defined by [83]. SOC requires the relationships, principles, and expectations that enable people to behave and work together by pointing to the common interests and values, principles, empathy and social interaction between workers.

Further research on the definition of the SOC organisation and its multilateral structure has established various models [81]. Structural capital consists of social and network connections that decide whether to interact. Network types, distance, connectivity, and hierarchy are included in these measurements. Relational capital is an efficient part of resources [85] defining network connections in

Fig [43] [86] suggested the need for more systematic analysis to determine the attributes that are related to firms with more potential implications on intellectual capital. Some intellectual capital scholars have recently proposed for the development of a model of antecedent conditions that could be vital for the successful development of intellectual capital [27]. The next sections clarify the two-antecedent factor of intellectual capital which are culture and trust.

terms of confidence, mutual expectations, and network identity [85]. Ultimately, cognitive capital consists of representatives of the organization's goals, mission, and principles [86]. The task of SOC is, therefore, critical to measure its effect in terms of creativity on organizational performance.

The creation of social capital calls for close attention in the company to promote standards and values which allow engagement, promote relationship growth, and foster team among staff [87]. Since, an intangible asset, social capital becomes difficult to replicate and build interest for the business through the collaboration and assimilation of know-how of people, helping businesses gain and retain strategic advantages [82]. Social capital preliminary analysis indicates that social capital is currently a core driver of the performance of the SMEs. Sustainable networks and working connections were seen to improve trust and the unity of priorities between leaders of the company and to provide consistent, positive ties for both organizational performance and revenue growth [88]. They propose the following theory, taking into account the importance of SC as an intangible resource.

## V. ANTECEDENTS VARIABLES OF INTELLECTUAL CAPITAL

This research follows the intellectual capital concept proposed by [59] wherein trust and culture (two antecedent constructs) play a significant role in driving the other intellectual capital dimensions as mentioned in

### **Culture (CUL)**

Cultural realism represents a road to productivity and competitiveness. In particular, a technology culture relies heavily on adaptability and a desire to build production, creativity, and innovation. The culture of the community represents solidarity, collaboration, and spirit as outlets for creating, inspiring, and deep human resources involvement. In total, flexible forms of culture foster and casual administration, transparent and directional contact

networks, and the autonomous flow of organizational information [69]. Unlike the managed community, this kind of adaptive majority culture is more adequate in the present knowledge setting and a main catalyst and service for promoting and directing intellectual capital management and growth [49].

Intellectual capital thus sets the framework for the success and stability of the company. Previous reports indicate that several companies had significant achievements with information tools and skills [69]. While the information revolution transforms the way businesses work, optimistic cultural shifts are the consequence [90]. [91] claimed that corporate culture serves to foster a community of success by connecting human understandings and their respective core values. Informative industry leaders also recognize the essential role of organizational culture, and they strive tirelessly with their specific organizations to establish a powerful and encouraging community. Interpersonal culture sticks out as an interpersonal link in the creation of human property, which can be creative. As [32] stated that there is clear proof of the unwillingness of institutions to cause behavioural transition owing to a delay in the execution of reform. This demonstrates the organization's interest improves from recruiting an outstanding human resource and improving workplace development. Furthermore, it is only necessary for organisations to turn intellectual capital into scalable and viable tasks to understand the value of the intellectual property. This includes an organizational commitment culture, encouragement in learning, advancement in information, and involvement in decision-making by organisations [92].

### **Trust (TRU)**

Trust is one of the corporations' highest goal to grow with the main players. The firms expend a fair amount of time and effort building trust among

investors, whether in the staff or external stakeholders, such as customers, vendors, clients, or opposing parties [73]. The commitment of workers is calculated by the trust they put in the organisation, resulting in decreased morale and efficiency. The same concept applies to customers, who will relocate to the competitor to protect their interests if a customer loses his confidence in a company. Besides, the lack of customer trust; the relationship between suppliers requires increasing transaction costs because more resources for contract monitoring and enforcement are necessary. In the same way, the lack of trust among companies and their investors will discourage investment. This underlines the value of stakeholder trust in institutions [29].

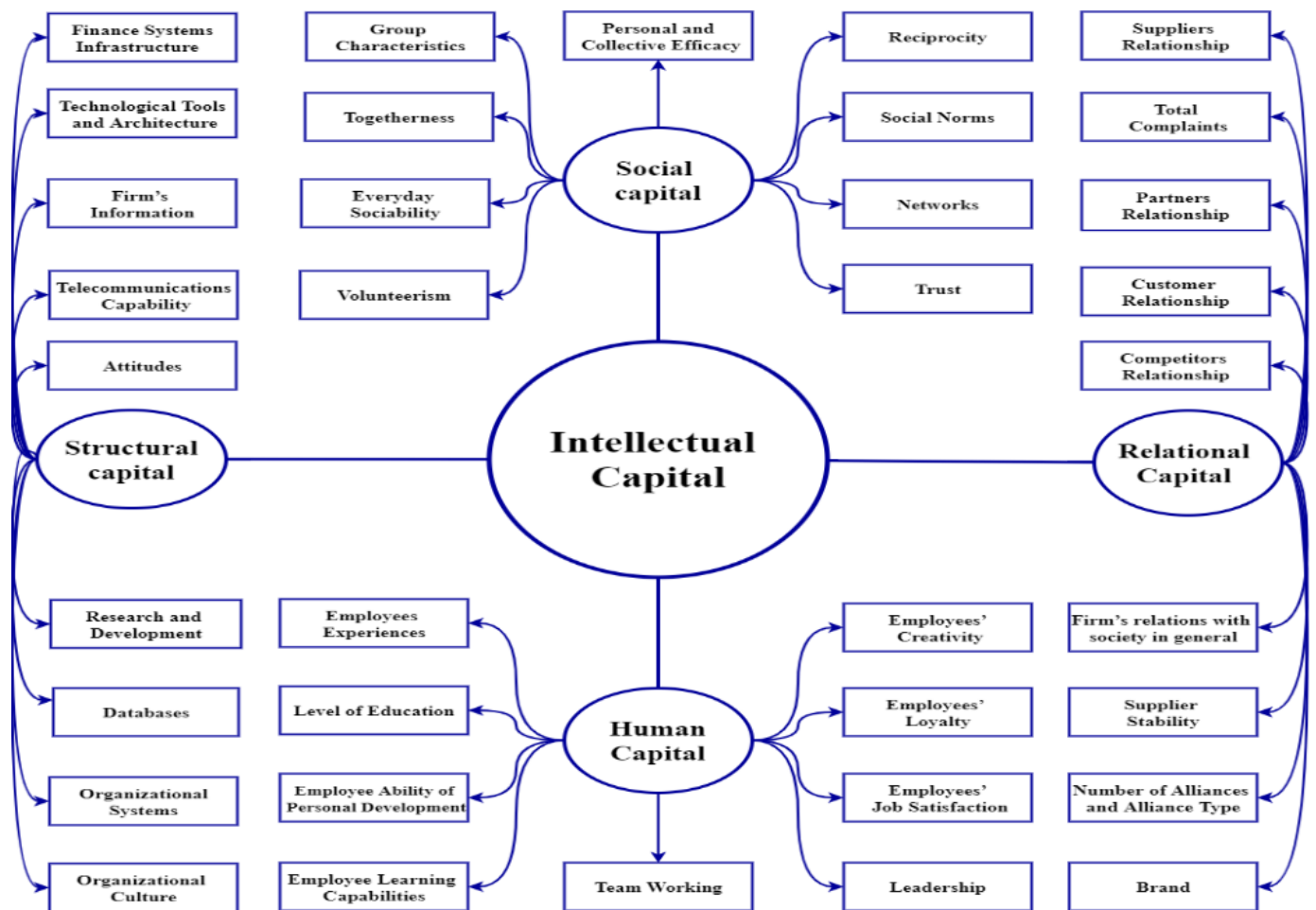
All stakeholders are usually separated into classes from an operational point of view where each community has its views and management criteria under their particular institutional interests. This, on the one side, has some diversified group-based criteria as a challenge for coping with confidence growth [93]. On the other hand, it also enhances the role and delicacy of trust in intellectual capital. Trust is viewed as essential to the growth of a company's human property, between companies and lenders, between companies and producers, between customers or internal trustees [94]. Trust is important for inter-organisational cooperation and cooperation [29].

The nature of trust is a phenomenon at the individual level. There is no clarity and specificity in how trust moves from an individual level to an organizational level. They often refer to individuals rather than organizations [95]. Trust has been defined as positive and satisfying expectations about the behaviour of others. At the same time, distrust is the negative expectation of conviction about the behaviour of others [96]. Organizational trust is assumed to be the assumption that others will not be opportunistic; that is why they will not do anything harmful to others [73]. It is the degree of delegation of some responsibilities and tasks to subordinates who represent positive and confident

expectations for their achievement of those tasks and responsibilities [94]. It is a strategic issue that may achieve the competitive advantage of a sustainable organization. It is a critical condition for the formation and strength of human relations [97]. It is the individual's faith in the objectives of the decisions and policies of the organization, reflecting the individual's satisfaction and

commitment to the organization [98]. [67] [68] [95] [99].

Fig: shows the structure of intellectual capital dimensions.



Source: Adapted from [67] [68] [95] [99].

Fig:4 The Hierarchical Structure of Intellectual Capital Dimensions

## VI. RELATIONSHIP BETWEEN CULTURE AND INTELLECTUAL CAPITAL

The success of most organizations is reliant on their intellectual capital; knowledge-related resources and capabilities are known to bring about radical organizational success. Despite the call for a change

by the knowledge economy in the way, organizations operate, success lies with successful cultural changes. As [104], suggested that certain strong indication can cause failure when instituting changes; for instance, brilliant human resources and attaching much relevance to workforce learning can

indeed increase organizational value; however, the advantages of intellectual capital can only be reaped when organizations can translate the human resource knowledge into sustained and reusable functions. This requires a culture through which learning is promoted, staff commitment is established, knowledge is shared, and organizational members are taking part in decision-making [69]. The changing work environment is increasingly subjecting organizations to the need for changes in their values, norms, and motivation of employees.

Regarding the creation of knowledge assets, organizational culture is an impenetrable barrier to the process. The study by [105] highlighted four ways culture can affect behaviours which are necessary for knowledge creation and sharing. The first one is when culture and its subcultures are forming assumptions about which of the knowledge is worthy of being managed; the second one is the connection between individual and organizational knowledge as specified by culture, and the third one is the heavy influence of culture on social capital as it determines knowledge usage in certain settings. The last one is that new knowledge and its inherent uncertainties are created, confirmed, and distributed in the organization with the implicit impact of cultures. These four perspectives, according to them, are imperative to managers when requested to assess different cultural aspects that exert influence on knowledge-related behaviours and are important to knowledge-based assets formation [58].

[105] stated that the culture of an organization binds the Intelligence of an individual and their respective core values in instigating a culture of excellence. It is also known that it can completely go awry if the core value of an organization is built upon fear or punishments, or if there is a disagreement between the interest of the organization and respect individual values. Visionary organizational leaders always understand the important role of corporate cultures; hence, they normally work towards establishing a strong culture

in their organizations. Organizational culture acts as an organizational glue, and it is important in the development of intellectual capital that can drive innovation [53].

There are numerous studies on organizational culture as many authors have focused mainly on culture as being mainly responsible for organizational success [53]; however, the fact is culture is considered as an area of essential organizational development, a strategic keystone for a successful company. Organizational culture is imperative to intellectual capital development; studies on organizational effectiveness are focused mainly on the role of OC towards maximizing the potential of their related intellectual assets [106].

According to [29], culture is pivotal to either effective organizational modification or augmenting the value of intellectual capital. Organizational culture is important to the success of the organization and can improve intellectual capital within the organization. This is true in today's organizations owing to the fluctuating environments; this creates the need for an impregnable OC that can prescribe the behavioural patterns that will inevitably hoard intangible resources that might have previously existed.

Different forms of corporate culture would impact intellectual capital differently; for instance, supportive or flexible dominant cultural types would foster intellectual capital greatly [107] in the context of the current study. The rationality of culture is more specifically reflective towards an orientation prone to efficiency and profit. Much attention is given to factors, such as planning, productivity, and goal clarity. The hierarchical nature of culture is highly reflective of bureaucracy and its inherent stability, emphasizing roles, rules, and regulations.

The culture of development is mainly dependent on adaptability and the readiness to achieve growth, innovation, and creativity. In contrast, the culture of a group is reflective of cohesion, teamwork, and



morale as avenues for fostering development, empowerment, and total commitment to human resources. The types of culture linked to flexibility are supportive of loose and informal controls, open and lateral channels of communication and organizational free flow of information. However, such a flexible dominant cultural type is more appropriate in today's knowledge-based scenario and is an important driver of intellectual capital development [27].

## **VII. RELATIONSHIP BETWEEN TRUST AND INTELLECTUAL CAPITAL**

The leaders of companies spend much time and energy trying to establish trust with their related stakeholders [96]. Normally, employee loyalty may be withdrawn if the employees have no trust in the company; hence, they will be less motivated and less productive. This will also extend to the customers as they may not wish to associate with a firm where there is no trust [73]. The lack of trust between a client and a supplier could cause the devotion of resources to contract monitoring and enforcement, and this will increase the transaction costs [93]. [96] the success of organizations that do not care about the trust of their investors is in jeopardy; this demonstrates the relevance of stakeholders' trust in organizations.

Stakeholders are commonly divided into groups based on their specific requirements and view of things, and it could be challenging to manage these different interest groups. This factor drives the trust factor in intellectual capital to the forefront of issues that requires careful handling. Trust is considered important to the growth of business intellectual capital [95]; according to [51] both interv- and inter av- organizational cooperation. For example, many studied have suggested the reliance on social capital on trust. Social capital requires a certain level of trust to exist; that is, it requires some foundation of trust.

The study by [29] succeeded in demonstrating that employees' trust is a central mediating factor since

it is directly correlated to their respective willingness to share tacit knowledge. Furthermore, [89] highlighted that trust is an important antecedent variable for customer satisfaction in the context of outsourcing training and development, mostly due to the existence of tacit knowledge. Privately-held knowledge cannot be shared in an environment devoid of trust, thereby making it difficult to create or exploit information. This implies that the management of intellectual capital is heavily reliant upon trust [27].

The authors in [108] argued that trust is crucial not only between personnel but also among leaders and their workforce. Trust is also an important consideration in the context of the learning organization [73], especially on the development of a network with the express purpose of knowledge-sharing. Studies have found that trust is imperative towards the creation of intellectual capital because of the importance of sharing tacit knowledge to the development of intellectual capital. The authors in [109] focused on the practices within knowledge-based organizations and suggested that trust is one of the significant factors. Hence, they concluded that these would turn tacit knowledge within employees to explicit knowledge, which is important in building both intellectual and social capital, accessible by others in the organization. The absence of trust among co-workers will deter the sharing of private information, indicating that the creation and subsequent development of intellectual capital are dependent on the levels of trust.

## **VIII. RELATIONSHIP BETWEEN HUMAN, RELATIONAL AND STRUCTURAL CAPITALS**

RC is accountable for all of the following relationships: sponsors, supporters, clients/individuals who profit from the programs; many organizations they coordinate with; regional and state administrative bodies (in many instances firms participate); policy institutions and public services (in which businesses



provide a significant amount of money to finance their activities) [110]. The organization not only performs a role in the building of links in the external world and also establishes a good "brand name" for the product of the business. The management is primarily accountable for the credibility and public interactions of the organization. HC and RC communicate with each other in this way [111].

RC helps companies to benefit from their context to meet their targets/consumers best and to consider emerging expectations about their business scenario. The RC and SC communicate across a corporate culture that determines the institution's area of operation, its atmosphere, and its response to questions [63]. In this analysis, focused on, intellectual capital is divided into human capital, relational capital (RC), structural capital (SC) to determine its impacts on the elements of structural capital [112]. Human resources are the unique expertise of each employee, such as advanced skills, expertise, and innovation [113]. Sarjana et al. (2017) observed that information is kept in three basic "reservoirs" or organizational components, leaders, resources, and activities, as well as links and structures [114].

The awareness flow between firms, including staff, organisations or associations, investors, suppliers, and consumers is relational resources [53]. The researcher would identify the measures of these social and personal mechanisms, including "community" components that promote awareness [73]. Referring to [63], the relation capital in the enterprise has three components: consumers, stakeholders, and communities but it must also be seen as a way of visualizing the knowledge flow of the enterprise based on [115] interactions between workers. Resource systems are the assets, procedures, structures, and processes of organisations intended to alter or preserve human capital or to control connection wealth. Besides, there is strong proven usage of the theory of intellectual capital, and the difference between the

theory of intellectual capital perception, the theory of information, and the ability theory of vision [116]. [117] concluded that the economic edge of companies could be derived by renewable intellectual capital by enhancing their strategic advantage [118].

## IX. CONCLUSION

This research investigated the antecedents of intellectual capital and its impact on intellectual capital components. First, exploring the concepts and definitions related to the current study, such as the Multiview of intellectual capital components. Then, the study managed to explain and analyse the relationships between intellectual capital components, as shown in the previous literature. Finally, the study found that human capital is the most effective component that affects the value of intellectual capitals.

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