

Unleashing Potential in SMEs: How Intellectual Capital Fuels Employee Flexibility to Reach Strategic Goals

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Abstract: This paper investigates the impact of intellectual capital on employee flexibility in SMEs, specifically focusing on how human, relational and structural components of intellectual capital contribute to skill and behavioural flexibility. The research addresses the gap in understanding how intellectual capital influences employee adaptability, essential for achieving strategic goals, especially in SMEs with limited resources. We have tried to address these research questions: Does intellectual capital improve skill and behavioural flexibility?; and how does employee flexibility impact the achievement of strategic goals? We have employed an empirical, quantitative research approach. Data has been collected through a structured survey from a sample of 233 Italian SMEs, and the relationships between variables has analysed using Partial Least Squares Structural Equation Modelling (PLS-SEM). Our findings reveal that human capital significantly enhances both skill and behavioural flexibility, while relational capital positively influences these aspects to a lesser extent. Interestingly, structural capital shows no significant direct impact on skill and behavioural flexibility. Both skill and behavioural flexibility demonstrate a significant positive impact on planning effectiveness. Contrary to previous studies, our results indicate that in SMEs, a high level of formalisation favours the achievement of strategic goals without hindering employee flexibility. This research advances the understanding of intellectual capital's role in SMEs by empirically demonstrating its impact on employee flexibility and subsequent performance. For scholars, this study extends the theoretical framework linking intellectual capital, employee flexibility and a firm's ability to reach strategic goals in SME contexts. It challenges existing assumptions about the relationship between formalisation and flexibility in smaller organisations, opening new avenues for future research. Furthermore, our findings contribute to the ongoing discussion about the unique characteristics of SMEs and how they can effectively manage their resources to remain competitive. For practitioners, particularly SME managers, the study emphasises the critical importance of fostering human and relational capital to achieve greater employee flexibility. By doing so, SMEs can enhance their ability to reach strategic goals.

Keywords: Intellectual capital, Employees' flexibility, SMEs, Strategy, PLS-SEM

1. Introduction

Today firms operate in a turbulent and dynamic environment where the ability to effectively perform a given set of tasks is insufficient to maintain a competitive advantage. Under these conditions, employee flexibility is a key asset that helps firms adapt and generate strategic alternatives (Bhattacharya and Wright, 2005; Camps *et al.*, 2016). Employee flexibility consists of two interconnected aspects, namely, skill flexibility and behavioural flexibility, which aid companies in pursuing various strategic options (Beltrán-Martín and Roca-Puig, 2013). Employees with versatile skills can perform various tasks, reducing the cost and time required to transition to new responsibilities (van den Berg and van der Velde, 2005). Moreover, a wide range of skills allows them to produce new solutions, increasing their behavioural flexibility (Parker and Axtell, 2001). Employees with flexible behaviour easily adjust to new situations, minimising the losses associated with such changes and enabling change-implementation processes in the firm. Finally, both skill and behavioural flexibility are resources that are difficult to imitate (Beltrán-Martín and Roca-Puig, 2013).

Employee flexibility is more important in small and medium enterprises (SMEs) than in larger firms. In fact, due to their lack of resources and labour-intensive nature, SMEs often have to assign their employees different tasks and roles (Messersmith and Guthrie, 2010). However, concerning the uncertainties of market dynamics, SMEs face the same problems as large firms (De Leede *et al.*, 2020). Considering that SMEs represent 99.8% of companies within the European Union and employ 66.6% of its working population (European Commission, 2019), this issue needs to be urgently addressed to support policymakers, managers and entrepreneurs. As

noted by Harney and Alkhalaf (2021), to develop robust and complete theories of HRM, scholars need to focus not only on large firms but also on SMEs, where the majority of employment resides. Paradoxically, despite their prevalence, much less attention has been paid to SMEs (Zhang and Edgar, 2021). Other than size, SMEs have other important features compared to large firms. SMEs are characterised by the central role of entrepreneurs, informality and lack of resources. Moreover, they are generally financed by the owner or through bank loans, and their market is generally limited to one or a few niches.

Most previous studies have focused on large firms (Bhattacharya, Gibson and Doty, 2005; Chang *et al.*, 2013; Ngo and Loi, 2008) and considered only HRM practices as proximal determinants of employee flexibility (Beltrán-Martín *et al.*, 2008; Way *et al.*, 2018). However, Way *et al.* (2018) called for future research exploring a broader set of factors that might influence employee flexibility. We argue that a firm's intellectual capital should be related to employee flexibility (Boxall, 2013; Ubeda-Garcia *et al.*, 2017). However, no empirical research currently exists regarding the relationship between these constructs.

This present paper tries to fill this gap by extending the analysis of determinants of employee flexibility to the whole stock of knowledge (i.e. intellectual capital) and addresses this research question: Does intellectual capital improve skill and behavioural flexibility? To answer this question, we have created and empirically tested a structural model on a sample of 233 Italian SMEs.

Our research is grounded in the resource-based view of firms, which states that organisational resources that are valuable, rare and difficult to imitate can be a source of competitive advantage (Barney, 1991). In particular, in competitive environments characterised by dynamicity, firms require resources that enable them to adapt to the changing circumstances. Resources are considered flexible when they can be utilised in multiple ways or modified to suit new circumstances. As a result, employee flexibility can be seen as a strategic resource that enables companies to alter their routines, services, products or target markets over time (Beltrán-Martín and Roca-Puig, 2013; Wright and Snell, 1998). For SMEs, employee flexibility is fundamental to enhance their ability to pursue strategic alternatives to reach their goals (Beltrán-Martín and Roca-Puig, 2013).

The remainder of this paper is structured as follows. Section 2 provides a review of the relevant literature, focusing on intellectual capital and employee flexibility. Section 3 develops our research hypotheses. Section 4 describes the research methodology, including the sample, data collection and measures used. Section 5 presents the results of our empirical analysis. Section 6 discusses the implications of our findings for both theory and practice. Finally, Section 7 concludes the paper, outlining the study's limitations and suggesting directions for future research.

2. Literature Review

2.1 Intellectual Capital

The transition to a knowledge-based economy has elevated intellectual capital (IC) to a prominent position as a crucial resource for firms worldwide (Martín-de-Castro *et al.*, 2011; Khalique *et al.*, 2020). This shift is characterised by the extensive use of intangible resources, which often hold greater value than tangible assets (Russell, 2017). In the 1990s, the emergence of a knowledge-based society was predicated on the idea that knowledge would become fundamental to economic growth and capital accumulation in an increasingly knowledge-driven future (Nonaka and Takeuchi, 1995). Consequently, IC began to be recognised as a key factor in a firm's value creation process, performance, competitive advantage and overall success (Agostini, Nosella and Filippini, 2017).

According to Kianto *et al.* (2014), intellectual capital is '*the sum of all of the intangible and knowledge-related resources that an organization is able to use in its productive process in the attempt to create value*'. IC plays a key role in formulating and implementing strategies effectively (Demartini and Beretta, 2020; European Commission, 2006) and helps managers respond better to a dynamic business environment (Cohen, Naoum and Vlismas, 2014). Numerous studies have demonstrated the critical role of IC in enhancing a firm's performance (Martín-de Castro, Díez-Vial and Delgado-Verde, 2019; Demartini and Beretta, 2020). Moreover, some scholars have identified a significant association between IC and specific aspects of entrepreneurship, suggesting that IC and its dimensions serve as strategic resources for firms (Crupi, Cesaroni and Minin, 2020). However, to achieve the desired benefits, firms need first to perceive the advantages of managing intellectual capital (Chiucchi, 2013; Giuliani and Chiucchi, 2019), and then, they must be able to effectively manage IC (Cohen and Kaimenakis, 2007). IC provides benefits in large, medium and small enterprises and in both profit and no-profit organisations (Agostini and Nosella, 2017; Bontis *et al.*, 2018; Del Baldo *et al.*, 2021; Sgrò, 2021). SMEs need to develop a high

level of IC to compensate for their smaller dimension and gain a competitive advantage since IC improves a company's ability to respond in order to effectively carry out its strategy (Cohen, Naoum and Vlismas, 2014).

Inkinen (2015) claims that a three-dimensional categorisation of intellectual capital, comprising human, structural and relational capital, has now become the standard for developing measurement models. Scholars generally agree that human capital (HC) forms the fundamental component of intellectual capital (Jardon and Martos, 2012). It is considered a “*non-substitutable*” and eccentric asset, which can deliver competitive differentiation in the firm (Khaliq et al., 2020) because ‘*nothing can actually happen in the firm without it*’ (Kianto, Hurmelinna-Laukkanen and Ritala, 2010, p. 308). HC includes both tacit and explicit knowledge that allows people to perform their tasks (Hormiga, Batista-Canino and Sánchez-Medina, 2011; Hsu and Fang, 2009; Nonaka, 1994) and refers to formal education, skills, experience and problem-solving. (Kianto, Sáenz and Aramburu, 2017). SMEs often rely on the skills and knowledge of their staff and entrepreneur for success, rather than having access to abundant resources or capital (Man, Lau and Chan, 2002). Empirical research investigating HC in SMEs found that it positively influences firm performance (Samagaio and Rodrigues, 2016), entrepreneurial success (Unger et al., 2011) and absorptive capacity (Oliveira et al., 2020). However, possessing a high level of skills does not mean the skills are also flexible.

Relational capital (RC) emphasises the value created through a company's external relations with clients, vendors, distribution channels, collaborators, the surrounding community and all other relevant stakeholders (Rahman et al., 2022). This form of capital highlights the importance of nurturing and leveraging a firm's high-quality relationships with external parties (Cuganesan, 2005). In other words, RC refers to a company's ability to acquire knowledge through its external stakeholders (Inkinen, 2015), generating a competitive advantage (Martín-de-Castro et al., 2011). Empirical results show that strong networks and work relationships can result in higher levels of trust and the alignment of organisational goals that, in turn, significantly improve SMEs' performance (Catanzaro, Messeghem and Sammut, 2019). When employees work in organisations that embrace a culture of support and security, they feel more confident and are willing to take on new challenges and experiment with new ways of solving problems.

Structural capital (SC) is the knowledge and expertise that remains within a company even after people have left (Youndt and Snell, 2004) and that represent an organisation's skeleton (Khaliq et al., 2020). SC comprises the knowledge embedded in information technology systems and the outputs and products resulting from knowledge transformation. This knowledge includes documents, databases, process descriptions, plans, the firm's intellectual property and all non-human repositories of knowledge within the organisation (Inkinen, 2015) that employees can leverage to perform different tasks and face new situations (Hsu and Fang, 2009). Scholars have found that SC reduces absenteeism (Kemelgor and Meek, 2008), and enhances enterprise value (Miles and Van Clieaf, 2017) and innovation performance (Giampaoli et al., 2021).

In general, the distinction between human capital, structural capital and relational capital is crucial to understanding their respective impact on firm performance. This paper allows for a more nuanced analysis of how different aspects of intellectual capital influence both skills and behavioural flexibility.

2.2 Employee Flexibility

In recent years, the interest in employee flexibility has increased as it is considered a factor that enhances the workforce's adaptability to new circumstances (Beltrán-Martín and Roca-Puig, 2013) and ensures the operational flexibility of resources on a daily basis (MacDuffie, 1995). However, empirical research, especially in the SME context, is still lacking (De Leede et al., 2020). Employee flexibility is more important in SMEs than in larger firms as they often assign their employees different tasks (Messersmith and Guthrie, 2010); however, at the same time, SMEs have difficulty implementing human resource management practices (Whyman and Petrescu, 2015). Harney et al. (2022) identified six key characteristics of SMEs summarised by the acronym RECIPE: resource constraints, environmental vulnerability, concentrated control, informality, proximity of relations and employee experience. SMEs face financial constraints and lack the time to take strategic decisions, while their labour-intensive nature makes them highly dependent on employee engagement. Their close interaction with the external environment makes them sensitive to socio-economic disruptions, forcing them to respond quickly to structural and market instability. Additionally, critical decisions are often concentrated in the hands of a small group of key individuals, influencing the approach to people management. SMEs tend to adopt less formalised work practices, relying on informal methods. The flat organisational structure facilitates direct interactions between managers and employees, increasing leadership visibility and the awareness of business challenges. Finally, employees often take on multiple roles and can directly influence the company's core activities, fostering intrinsic motivation and greater engagement even without sophisticated human resource

management practices. Given these characteristics, employee flexibility in SMEs is crucial for effectively adapting to internal and external dynamics, highlighting the importance of exploring additional factors that influence this flexibility.

Flexible employees 'can' and 'will' do different work activities that are required them to accomplish strategic alternatives and effectively respond to a turbulent or high-growth industry sub-sector (Tracey, Way and Tews, 2008). Flexible employees can improvise and generate new ideas that will result in new knowledge (Ubeda-Garcia *et al.*, 2017). Empirical studies have found that employee flexibility has a positive impact on performance at both the individual (Camps *et al.*, 2016) and organisational level (Bhattacharya, Gibson and Doty, 2005; Ubeda-Garcia *et al.*, 2017; Way *et al.*, 2018). We have defined employee flexibility as "*the extent to which employees possess skills and behavioural repertoires that can provide a firm with options to pursue strategic alternatives*" (Beltrán-Martín and Roca-Puig, 2013). Employee flexibility has two interconnected components: skill flexibility (SKFLEX) and behavioural flexibility (BEFLEX). Skill flexibility is a quality that allows employees to perform multiple tasks with the knowledge and skills they possess, as well as quickly learn new skills (Beltrán-Martín *et al.*, 2008). Employees with flexible skills can be useful as necessary and are enthusiastic to learn new approaches to accomplish their tasks (Chang *et al.*, 2013). They can also perform different tasks under different circumstances e.g., they can be mobilised to new jobs with low cost and in a short period (Camps *et al.*, 2016). Skill flexibility differs from behavioural flexibility in that employees may be willing to act flexibly but lack the necessary knowledge or abilities (Beltran-Martin and Roca-Puig, 2013). Behavioural flexibility is the "*capacity of people to adapt to changing situations or to exhibit appropriate behavioural repertoires under different situations*" (Bhattacharya, Gibson and Doty, 2005). Therefore, behaviour becomes inflexible when employees apply predetermined patterns of actions to deal with new situations (Wright and Snell, 1998), while employees with flexible behaviour can adapt as necessary by seeking new ways to perform their tasks and improvising (Bhattacharya, Gibson and Doty, 2005). Flexible behaviour is a key resource as it allows employees to cope with new situations, minimising non-adjustment costs (Bhattacharya, Gibson and Doty, 2005). Schuler and Jackson (1987) have called for a fit between a firm's strategy and the types of behaviour exhibited by employees.

3. Hypothesis Development

We claim that employee flexibility and knowledge are two strictly related variables. If employee flexibility consists in using one's knowledge and skills to perform different tasks and play different roles (Beltran-Martin *et al.*, 2013), it follows that those employees with broad knowledge, and diversified skills, can perform extra-role activities (Wang and Wang, 2012). However, as has been said before, from our perspective, possessing a high level of skills does not guarantee that the skills are also flexible. Therefore, we have decided to differentiate between the concepts of skill level (human capital) and skill and behavioural flexibility. However, SMEs lack resources, including employees, which are often assigned different tasks, so it is reasonable to expect that their skills are general and flexible.

HC contributes to a firm's competitive advantages by improving employee flexibility as superior human resources provide adaptive performance, increasing the firm's flexibility (Pulakos *et al.*, 2000). Educated and skilled employees are key resources that help firms adapt and face strategic changes (Cabrilo and Grubic-Nesic, 2013). Employees' unused skills have potential value that could create new business opportunities for the company and impact strategic decision-making (Jin, Hopkins and Wittmer, 2010). In other words, having a high level of skills can increase employee flexibility as they can transfer their knowledge to different areas. Therefore, employees with broad-based skills can be redeployed quickly and, especially in turbulent environments, are a key source of competitive advantage (Boxall, 2013). Therefore, we hypothesise that:

H1: Human capital (HC) enhances skill flexibility (SKFLEX);

H2: Human capital (HC) enhances behavioural flexibility (BEFLEX);

Knowledge obtained from external stakeholders helps firms update their knowledge base and skills (Miroshnychenko *et al.*, 2021) and can be integrated with the existing knowledge to realign and reshape existing resources (Azmi, 2008), such as applicable scopes, switching procedures from one use to another (Zhao and Wang, 2020). When employees are used to considering information and ideas from different audiences, they are more open to listening to others' points of view, creating a constructive and agreeable work climate (MacDuffie, 1995; Snell and Dean, 1992) that allows them to anticipate contingencies (McDonald, Khanna and Westphal, 2008). In this sense, RC with strong ties facilitates the exchange of high-quality information and tacit knowledge (Fernández-Pérez, Montes and García-Morales, 2014). Finally, relational skill enhances a flexible attitude (Tublin, 2011). Therefore, we hypothesise that:

H3: Relational capital (RC) enhances skill flexibility (SKFLEX);

H4: Relational capital (RC) enhances behavioural flexibility (BEFLEX);

SC is the stock of knowledge codified in information systems and routines for subsequent use and application (Khalique *et al.*, 2018) and should provide employees with the knowledge and skills they need to perform a variety of tasks and adapt to changing circumstances. However, knowledge embedded in information systems and databases may become outdated in new circumstances arising from a changing environment (Heimeriks, Schijven and Gates, 2012). Therefore, unlike HC and RC, we do not expect SC to be related to either type of flexibility. However, because it is inappropriate to hypothesise no relationship, we offer no hypotheses here but will explore the relationships.

Several empirical studies have proven the positive impact that behavioural flexibility has on a firm’s performance (e.g., Bhattacharya, Gibson and Doty, 2005). Empirical research by Ketkar and Sett (2009) indicates that flexible behaviour has a threefold impact on firm performance; it affects employee performance, operational performance and financial performance. Meanwhile, Bhattacharya *et al.* (2005) showed a linkage between skill flexibility and a firm’s financial performance. Yasir and Majid (2020), using a sample of 831 employees from SMEs, found that skill flexibility fully mediates the relationship between high-involvement HRM and employees’ innovative work behaviour. Finally, Anser *et al.* (2020) found that knowledge sharing among employees enhances skill flexibility, which, in turn, positively influences employees’ innovative work behaviour and acts as a mediator between knowledge sharing and innovative work behaviour. One of the most important benefits of employee flexibility found in literature is that it enhances a firm’s ability to pursue strategic alternatives to reach their goals (Beltrán-Martín and Roca-Puig, 2013). For firms operating in a complex and dynamic environment, this ability is fundamental to reaching their strategic goals as they need more flexible options. Therefore, we hypothesise that:

H5: Skill flexibility (SKFLEX) enhances planning effectiveness (PE);

H6: Behavioural flexibility (BEFLEX) enhances planning effectiveness (PE);

All the hypotheses are represented in Figure n° 1.

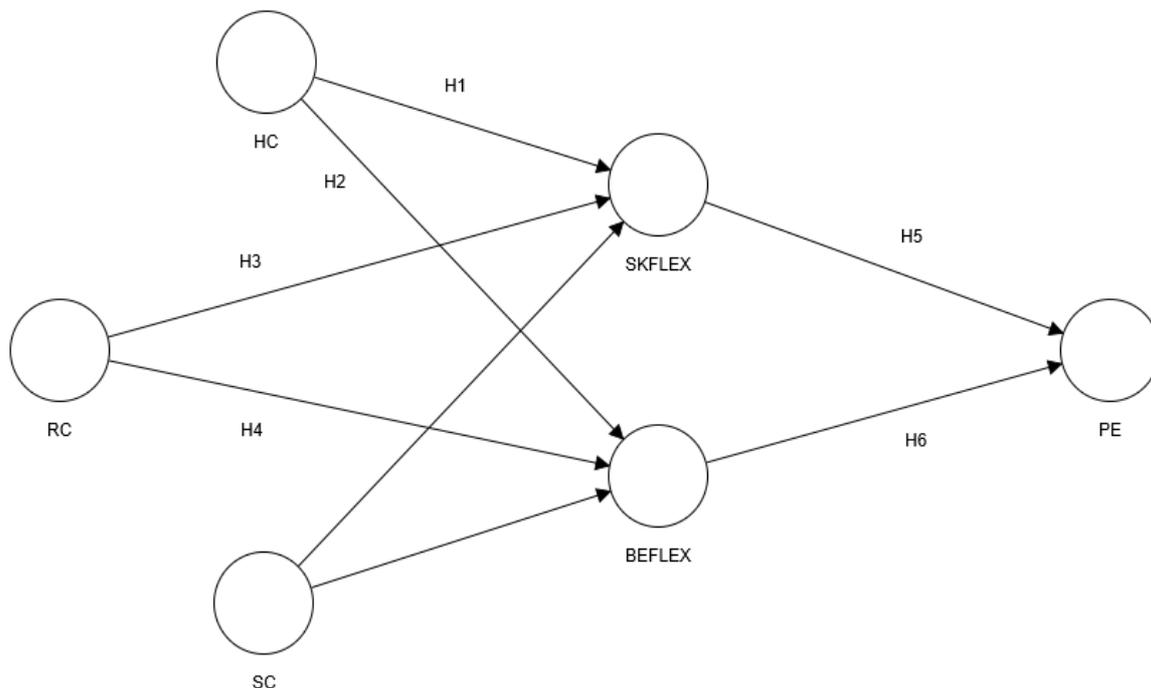


Figure 1: Hypotheses

4. Research Methodology

4.1 Data Collection, Sample and Measurement

We randomly selected 2000 Italian SMEs located in central Italy (Marche Region) from the AIDA database. The majority of the business sector in Italy is composed of SMEs (97.7%). The data collection took place from

December 2018 to March 2019. We emailed each firm to explain the research project and invited them to take part in the survey. Out of 2000 firms, 295 participated in the research. However, only responses from SME managers and other key informants were considered. The final sample contains 233 completed surveys, representing approximately a 12% response rate, which is in line with previous research (e.g., Del Baldo *et al.*, 2021). Most firms are SMEs (98%), while micro-enterprises represent 2%. CEOs represent 32% of the respondents, 46% managing directors, and the remaining 22% cover a role of responsibility in strategy, finance, planning and control or human resource management. The manufacturing sector represents 41%, other services 21%, commerce 12% and construction 6%. The remaining 20% represents different niche sectors such as transportation and real estate.

Latent variables were operationalised through the use of existing measurement scales. Respondents were asked to rate their level of agreement or disagreement with each item on a 7-point Likert scale. Scales for intellectual capital were taken from previous work by Del Baldo *et al.* (2021), items for the skill flexibility scale were taken from previous work by Bhattacharya *et al.* (2005), while the behavioural flexibility scale was taken from Ngo and Loi (2008). When pursuing strategic alternatives, firms try to reach different goals, some going beyond the traditional financial ones. Therefore, to investigate this dimension, we decided to utilise the planning effectiveness scale of Elbanna and Elsharnouby (2018) as the performance variable, as it includes several goals other than traditional financial ones. All the scales and their items are shown in the appendix.

4.2 Control Variables

We included formalisation and firm size as control variables to reinforce our model. Formalisation consists in explicit rules, policies and procedures that can be applied at both an organisational and job level (Hempel, Zhang and Han, 2012). Previous empirical research has demonstrated that formalisation reduces employee flexibility in several ways (Hempel, Zhang and Han, 2012). Hempel, Zhang and Han (2012) analysed 94 high-technology firms operating in China and showed that job formalisation reduces flexibility in teams. Majid, Yasir and Yasir (2017) examined functional flexibility in Pakistani SMEs and found that task formalisation was negatively related to the employees' willingness to be flexible. Although resource flexibility has many benefits (Beltrán-Martín *et al.*, 2008), according to Adomako and Ahsan (2022), resource flexibility in SMEs can lead to scarce resources and, therefore, undesirable outcomes. We measured formalisation by adopting two items from the scale of Lee and Choi (2003), while the firm size is measured through the number of employees.

5. Results

For their validation, we subjected the measurement scales to various psychometric tests. To test the constructs' reliability, we used Cronbach's alpha, which, according to Hair *et al.* (2014), must be above 0.7. As shown in Table 1, our results are well above the threshold. Moreover, considering that PLS does not assume that all indicators have the same weight, we performed the composite reliability analysis, as it is more adequate than Cronbach's alpha for testing reliability (Hair *et al.*, 2014). All the values are above the threshold of 0.7, demonstrating sufficient reliability. Convergent validity requires that a set of indicators form a single latent variable (one-dimensionality). To test convergent validity, we used the average variance extracted (AVE) (Hair *et al.*, 2014). Convergent validity requires that the value of AVE be above 0.5 for each model construct. As shown in Table 1 the values range between 0.669 and 0.908, confirming that convergent validity is assured. Discriminant validity aims to ensure that each latent variable differs from the others. We tested for discriminant validity through the Heterotrait-Monotrait Ratio (HTMT) (Henseler, Ringle and Sarstedt, 2015). Table 2 indicates that HTMT values are below the recommended threshold of 0.90 so that discriminant validity is ensured. Having collected self-reported data from a single source, there could be the risk of common method bias (CMB) (Podsakoff and Organ, 1986). We adopted the suggested procedures to minimise this issue (Podsakoff *et al.*, 2003). First of all, we ensured the respondents' anonymity. Second, following previous studies (Miroshnychenko *et al.*, 2021), we performed two statistical tests. We conducted Harman's one-factor test (Podsakoff and Organ, 1986) by incorporating all the items into a factor analysis and the results indicated that none of the factors accounted for more than 50% of the variance, which is the threshold recommended by Podsakoff *et al.* (2003). Moreover, we tested for common method bias, including a common method factor in our model whose indicators included all the indicators of the other constructs we analysed (Podsakoff *et al.*, 2003). Results indicate that CMB does not have a significant impact on our study.

Table 1: Reliability and Convergent Validity

Reliability and Convergent Validity					
Variables	Items	Loadings	Cronbach's alpha	Dillon-Goldstein rho	AVE
Human Capital			0.903	0.939	0.838
	HC1	0.925			
	HC2	0.934			
	HC3	0.886			
Relational Capital			0.950	0.968	0.908
	RC1	0.948			
	RC2	0.952			
	RC3	0.959			
Structural Capital			0.848	0.907	0.765
	SC1	0.907			
	SC2	0.879			
	SC3	0.838			
Skill Flexibility			0.928	0.955	0.875
	SKFLEX1	0.906			
	SKFLEX2	0.957			
	SKFLEX3	0.942			
Behavioural Flexibility			0.913	0.945	0.850
	BEFLEX1	0.900			
	BEFLEX2	0.941			
	BEFLEX3	0.924			
Planning Effectiveness			0.901	0.924	0.671
	PE1	0.850			
	PE2	0.897			
	PE3	0.875			
	PE4	0.800			
	PE5	0.708			

Reliability and Convergent Validity					
	PE6	0.771			
Formalisation			0.833	0.923	0.857
	FORM1	0.923			
	FORM2	0.928			

Table 2: Discriminant Validity

	HTMT							
	HC	RC	SC	SKFLEX	BEFLEX	FORM	SIZE	PE
HC								
RC	0.440							
SC	0.619	0.593						
SKFLEX	0.749	0.487	0.523					
BEFLEX	0.729	0.498	0.519	0.784				
FORM	0.334	0.247	0.710	0.227	0.229			
SIZE	0.010	0.013	0.063	0.031	0.084	0.028		
PE	0.715	0.665	0.764	0.571	0.555	0.429	0.058	

We analysed the data using PLS-SEM (Hair *et al.*, 2014). It is well suited for exploratory research (Benitez *et al.*, 2020) and is the best option when it is unclear whether the nature of the data is based on a common factor or a composite (Sarstedt *et al.*, 2016). To test the statistical significance of the results, we used a bootstrap algorithm with 5000 subsamples (Hair *et al.*, 2014). Two models were created to analyse how dependent variables develop their explained variance (R^2). In the first model, we inserted only the control variables, while in the second model, we analysed all the hypothesised relationships.

In Model 1 we found that control variables explain a significant amount of variance of PE ($R^2 = 0.193$) but only a minimum amount of variance of both SKFLEX ($R^2 = 0.042$) and BEFLEX ($R^2 = 0.045$). In line with previous studies, (e.g., Baum and Wally, 2003) formalisation significantly influences ($\beta = 0.437$, T-statistic = 8.689) and explains most of the variance ($f^2 = 0.23$) of PE. On the contrary, formalisation influences both SKFLEX ($\beta = 0.202$, T-statistic = 2.690, $f^2 = 0.043$) and BEFLEX ($\beta = 0.204$, T-statistic = 2.846, $f^2 = 0.044$) but has a low explanatory power. Firm size has no impact and no explanatory power on SKFLEX ($\beta = -0.030$, T-statistic = 0.533, $f^2 = 0.001$), BEFLEX ($\beta = -0.060$, T-statistic = 0.924, $f^2 = 0.004$) and PE ($\beta = 0.043$, T-statistic = 0.706, $f^2 = 0.002$).

In Model 2 all the hypothesised relationships are considered (Figure 2). We found that the explained variance for PE ($R^2 = 0.385$) substantially increases, while the increase for both SKFLEX ($R^2 = 0.521$) and BEFLEX ($R^2 = 0.508$) is dramatic. We found that human capital enhances both skill flexibility ($\beta = 0.585$, T-statistic = 10.314, $f^2 = 0.489$) and behavioural flexibility ($\beta = 0.562$, T-statistic = 9.510, $f^2 = 0.440$). Relational capital enhances both skill flexibility ($\beta = 0.179$, T-statistic = 2.519, $f^2 = 0.045$) and behavioural flexibility ($\beta = 0.200$, T-statistic = 2.854, $f^2 = 0.055$). Structural capital has no role in enhancing skill and behavioural flexibility. Both skill flexibility ($\beta = 0.283$, T-statistic = 3.515, $f^2 = 0.060$) and behavioural flexibility ($\beta = 0.253$, T-statistic = 3.297, $f^2 = 0.048$) have a direct impact on planning effectiveness.

Finally, our control variable, formalisation, has no significant impact on SKFLEX and BEFLEX, but a significant direct impact ($\beta = 0.227$, T-statistic = 4.724, $f^2 = 0.118$) on PE, confirming its explanatory power. As far as firm size is concerned, it has absolutely no influence on SKFLEX, BEFLEX or PE. Table 3 and 4 show our results.

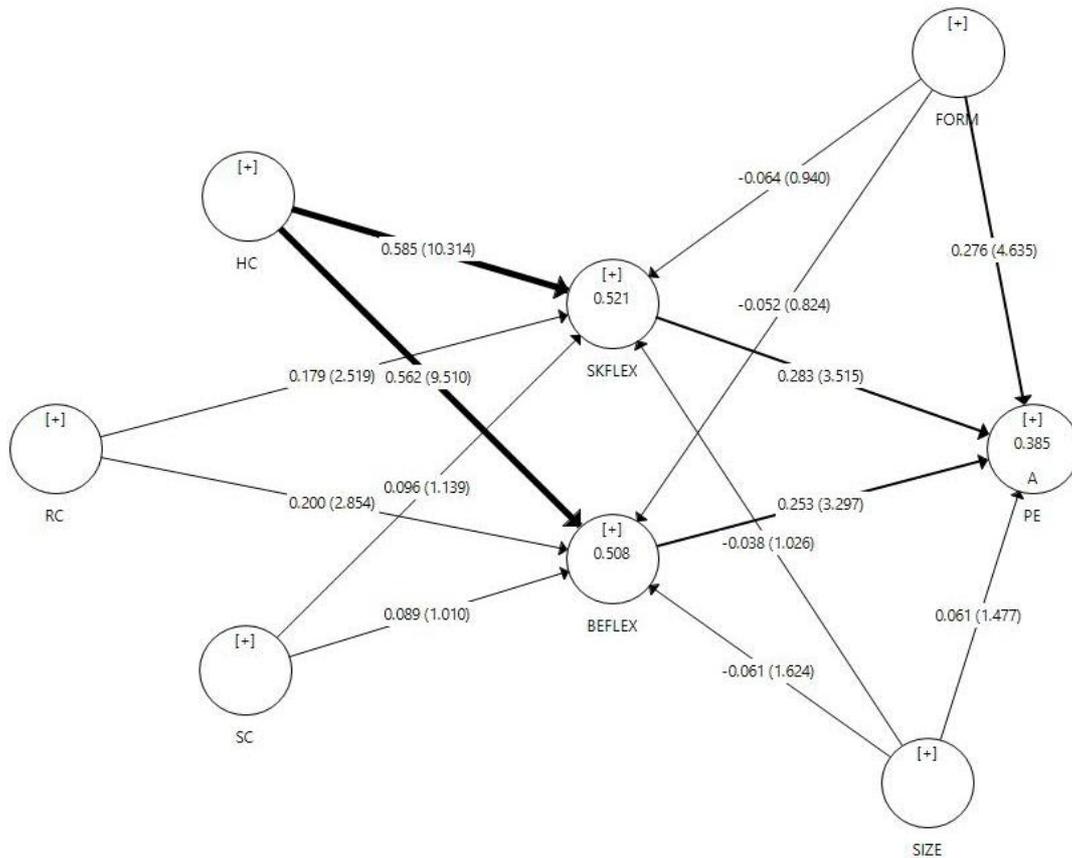


Figure 2: Results of the Structural Model

Table 3: Results of the Structural Model

Hypothesis	Path	Path Coefficient	T-value	P-value	Status
H1	HC -> SKFLEX	0.585	10.314	0.000	SUPPORTED
H2	HC -> BEFLEX	0.562	9.510	0.000	SUPPORTED
H3	RC -> SKFLEX	0.179	2.519	0.011	SUPPORTED
H4	RC -> BEFLEX	0.200	2.854	0.005	SUPPORTED
H5	SKFLEX -> PE	0.283	3.515	0.000	SUPPORTED
H6	BEFLEX -> PE	0.253	3.297	0.001	SUPPORTED

Table 4: Exploration of Relationships between SC, SKFLEX and BEFLEX

Path	Path Coefficient	T-value	P-value
SC -> SKFLEX	0.096	1.139	0.257
SC -> BEFLEX	0.089	1.010	0.315

6. Discussion

This study investigates which firm-specific factors drive employee flexibility in SMEs and how this, in turn, enhances SMEs' ability to achieve strategic goals. Based on the assumption that knowledge and employee flexibility are two strictly related resources, as a broader knowledge base allows employees to perform different tasks (Beltran-Martin *et al.*, 2013) and perform extra-role activities (Wang and Wang, 2012), we have considered IC as a driver of employee flexibility. We will now discuss our findings for each hypothesis in detail.

H1: Human capital (HC) enhances skill flexibility (SKFLEX). Our results support this hypothesis. Human capital significantly enhances skill flexibility ($\beta = 0.585$, T-statistic = 10.314, $f^2 = 0.489$), indicating that possessing a high level of skills is a necessary precondition for skill flexibility. The more skills and knowledge employees have, the greater their capability and willingness to perform new and different tasks. This aligns with previous research (e.g., Beltrán-Martín *et al.*, 2013; Wang and Wang, 2012) suggesting that broad knowledge and diversified skills enable employees to perform extra-role activities. In the context of SMEs, where resources are often limited, this flexibility becomes even more crucial for adapting to changing demands and environments.

H2: Human capital (HC) enhances behavioural flexibility (BEFLEX). This hypothesis is also supported by our findings. Human capital positively affects behavioural flexibility ($\beta = 0.562$, T-statistic = 9.510, $f^2 = 0.440$). A high level of human capital affects skill flexibility and also behavioural flexibility. This suggests that employees with broad and diverse knowledge feel more confident adapting their behaviour to new situations. This result supports the idea that human capital contributes to a firm's competitive advantages by improving employees' adaptive performance (Cabrilo and Grubic-Nesic, 2013).

H3: Relational capital (RC) enhances skill flexibility (SKFLEX). Our results support this hypothesis. Relational capital enhances skill flexibility ($\beta = 0.179$, T-statistic = 2.519, $f^2 = 0.045$), albeit with a smaller effect size compared to human capital. This finding suggests that strong relationships with stakeholders provide employees access to diverse knowledge and information, enhancing their ability to perform various tasks, which aligns with Miroshnychenko *et al.*'s (2021) assertion that knowledge obtained from external stakeholders helps firms update their knowledge base and skills.

H4: Relational capital (RC) enhances behavioural flexibility (BEFLEX). The findings support this hypothesis as well. Relational capital positively influences behavioural flexibility ($\beta = 0.200$, T-statistic = 2.854, $f^2 = 0.055$). Strong relationships foster an environment where employees feel more comfortable adapting their behaviour to new situations. This may be because relational capital facilitates the exchange of high-quality information and tacit knowledge (Fernández-Pérez, Montes and García-Morales, 2014), which can broaden employees' perspectives and increase their willingness to adapt.

Structural capital has no significant direct impact on both skill and behavioural flexibility. We have advanced two possible explanations. First, SC is related to the procedures, norms, systems and routines that store knowledge for its re-use (Youndt, Subramaniam and Snell, 2004), so its focus is on the current competitive environment. This knowledge stock may become outdated in new circumstances arising from a changing environment and lose its past value (Heimeriks, Schijven and Gates, 2012). Therefore, updating routines and knowledge may become key to enhancing employee flexibility and pursuing strategic alternatives (Wright and Snell, 1998; Cepeda-Carrión *et al.*, 2015). Second, knowledge embedded in information systems, databases and organisational routines is explicit knowledge, in other words, knowledge that can be easily codified and transmitted. On the contrary, tacit knowledge, that is, a key component to performing tasks, is tied to senses, tactile experiences and movement skills; therefore, it is more difficult to codify and transmit (Nonaka, 1994; Nonaka, Umemoto and Senoo, 1996). As a consequence, the benefits deriving from its use by personnel called to perform different tasks will be limited. This suggests that while structural capital is important for organisational functioning, it may not directly contribute to employee flexibility in SMEs.

H5: Skill flexibility (SKFLEX) enhances planning effectiveness (PE). Our findings support this hypothesis. Skill flexibility has a significant direct impact on planning effectiveness ($\beta = 0.283$, T-statistic = 3.515, $f^2 = 0.060$). This result suggests that employees with flexible skills contribute significantly to the effectiveness of strategy. This aligns with Wright and Snell's (1998) assertion that employee flexibility provides firms with more options to pursue strategic alternatives and reach their goals.

H6: Behavioural flexibility (BEFLEX) enhances planning effectiveness (PE). Our results also support this hypothesis. Behavioural flexibility positively affects planning effectiveness ($\beta = 0.253$, T-statistic = 3.297). Behaviourally flexible employees appear to contribute to more effective strategies, possibly by being more adaptable to changes in plans and more willing to engage in different tasks. This supports the idea that flexible

employees can improvise and generate new ideas, leading to a more effective strategy (Ubeda-Garcia *et al.*, 2017).

Control variables: an unexpected and fascinating result concerns the relationship between formalisation and flexibility. Different from previous empirical studies (Hempel, Zhang and Han, 2012; Majid, Yasir and Yasir, 2017), our results show that in SMEs a high level of formalisation not only favours the achievement of strategic goals ($\beta = 0.227$, T-statistic = 4.724, $f^2 = 0.118$) but does not hinder skill or behavioural flexibility at all. A possible explanation to reconcile the presence of the benefits deriving from both formalisation and employee flexibility in SMEs could be the following. Even if having too many formalised procedures can limit employee flexibility (Hempel, Zhang and Han, 2012; Majid, Yasir and Yasir, 2017), formalisation does not necessarily prevent employees from being assigned different tasks. In fact, due to their lack of human resources and labour-intensive nature, in SMEs, this is often the case (Messersmith and Guthrie, 2010), and it is reasonable to expect that their skills are general and consequently flexible. This fact also seems to be confirmed by the strong correlation (0.69) between human capital (skill level) and skill flexibility constructs. As a result, SMEs will benefit, on one hand, from formalised procedures that help them reduce the dispersion and waste of scarce resources (Adomako and Ahsan; 2022) and, on the other hand, from flexible employees that “*can*” and “*will*” do the different tasks required to accomplish strategic alternatives and reach strategic goals.

7. Implication and Limitations

7.1 Theoretical Implications

This is the first paper to conceptualise and empirically test the relationship between IC and employees flexibility in SMEs and fill some important gaps in the literature.

First, we have contributed to intellectual capital literature regarding the role of human and relational capital in improving both skill and behavioural flexibility. We have found that possessing a high level of knowledge and skill (i.e., human capital) is a precondition for employee flexibility. SMEs able to develop qualitative relationships with their stakeholders have shown their ability to enhance both skill and behavioural flexibility, confirming that relational capital boosts employee flexibility (Miroshnychenko *et al.*, 2021). Finally, the results show that structural capital does not enhance skill or behavioural flexibility as this sort of knowledge is focused on the current competitive environment and may rapidly become outdated (Heimeriks, Schijven and Gates, 2012).

Second, we have contributed to the literature on employee flexibility by responding to Way *et al.*'s (2018) recent call for empirical research to explore the internal (firm-level) factors that enhance employee flexibility by examining the whole knowledge stock a firm can fully draw from, that is to say, a firm's intellectual capital. Although several scholars have suggested that employee flexibility helps firms pursue strategic alternatives and reach their strategic goals, this linkage has not yet been empirically tested in SMEs. Our findings support the assumption of Beltrán-Martín and Roca-Puig (2013) and Wright and Snell (1998) that flexible employees will be able to adapt to changing working contexts and be willing to collaborate with partners with different points of view by integrating their different skills to reach a firms' strategic goals and find flexible options (Volberda, 1998). This ability is even more important for SMEs as they suffer change and uncertainty more than larger firms due to their smaller size and lack of resources (Wynarczyk *et al.*, 1993).

Our third theoretical contribution has shed new light on the relationship between employee flexibility and formalisation in SMEs. Empirical results suggest that a high level of formalisation does not hinder employee flexibility, while it strongly favours the achievement of SMEs' strategic goals. We have advanced a possible explanation to reconcile the presence of benefits deriving from formalisation and employee flexibility in SMEs. Even if having procedures that are too formalised can limit employee flexibility (Hempel, Zhang and Han, 2012; Majid, Yasir and Yasir, 2017), they do not necessarily prevent them from being assigned different tasks. On the contrary, their lack of resources and labour-intensive nature oblige SMEs to frequently assign their employees different tasks (Messersmith and Guthrie, 2010). At the same time, since SMEs have limited human resources, they are particularly at risk, as it is hard to replace employees who leave or are absent for longer periods (Durst and Wilhelm, 2012). Therefore, managers and employees are required to have broad and generalist skills (De Leede *et al.*, 2020). As a result, SMEs will benefit from both formalised procedures and flexible employees that “*can*” and “*will*” do the different tasks required to accomplish strategic alternatives and reach SMEs' strategic goals. This detail allows you to look at formalisation and employee flexibility in SMEs from a new perspective, where these two variables are not in contrast anymore.

7.2 Managerial Implications

Our findings have noteworthy practical implications for SMEs. SMEs should be aware that intellectual capital plays a crucial role in shaping employee flexibility and should understand how the different components of IC are connected to the adaptability of their staff. SMEs that need more flexible employees would profoundly benefit from investing in human and relational capital. It is worth underlining that possessing highly skilled employees may not be sufficient per se to ensure they can adapt to different contexts. SME employees are often assigned different tasks and need both specialistic and general skills to switch easily from one to another. Providing employees with suitable knowledge and skills that will enable them to be as flexible as possible is a challenge SMEs' cannot ignore, as their success depends on the quality of their human resources.

7.3 Limitations and Areas of Future Research

As with any empirical study, our exploration of the precursors and consequences of employee flexibility has limitations. First, our study gathered all the focal variables from a single source within each firm.

Second, the results are based on a sample of Italian SMEs and may not be generalisable to other types of organisations or regions with different cultural and institutional environments. Further research is needed to assess the validity of our findings in different geographic areas, and ideally in studies that cross multiple country boundaries.

Ethics Statement: The present research was conducted in compliance with the ethical guidelines of the affiliated institution. Since it involved an anonymous questionnaire, approval from an ethics committee was not required. Before completing the questionnaire, entrepreneurs were informed about the purpose of the research and their right to refuse participation. Data were collected and analyzed in an anonymous and aggregated form solely for academic purposes, in accordance with current regulations on personal data protection (GDPR).

AI Statement: During the drafting of this manuscript, QuillBot was used exclusively to enhance grammatical accuracy and paraphrase certain text passages. The use of QuillBot did not affect the development of the content, analyses, or interpretations of the study. The authors take full responsibility for the integrity and accuracy of the entire work.

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Appendix

Human capital:

1. Our employees are highly skilled at performing their tasks.
2. Our employees have a lot of experience in their job.
3. Our employees are good at problem-solving.

Relational capital:

1. We exchange information with external parties (e.g. customers and suppliers) in a very effective way.
2. We collaborate extensively with external parties (e.g. customers and suppliers) to develop new solutions.
3. We collaborate with external parties (e.g. customers and suppliers) in a very effective way.

Structural capital:

1. Our company has a lot of useful information in documents and databases.
2. We keep complete documentation of the work processes.
3. We use technology to integrate internal work processes tightly.

Skill flexibility:

1. Our firm can shift employees to different jobs when needed.
2. We employ people with a broad variety of skills.
3. Many employees in our firm have multiple skills that are used in various jobs.

Behavioral flexibility:

1. The flexibility of our employees' work habits helps us change according to market demands.
2. Our employees respond to changing situations within a short time.
3. Most of our employees are flexible enough to adjust to dynamic work requirements.

Formalisation: In my organisation ...

1. employees have to adhere closely to formal procedures
2. there are many activities covered by some formal procedures

Planning effectiveness: In my organisation we have ...

1. Developed a clear vision
2. Oriented the firm toward a unified mission
3. Defined clear priorities and focused on the important issues
4. Achieved a good fit between the external environment and our firm's internal capabilities
5. Delivered high-quality products/services
6. Improved firm performance