

EXPLORING PRACTICES FOR EFFECTIVE COLLABORATION

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ABSTRACT

Achieving more with fewer human resources is a challenge faced by most organisations. Therefore, bringing diverse knowledge and skills together in an integrated way is becoming a business imperative. Effective collaboration may help organisations optimise their human resources. This article explores collaboration with the intention of identifying practices which promote it effectively. This was a non-empirical theoretical study which involved the development of a model of collaboration. Information was methodically organised to clarify themes, applied in a framework of antecedents, processes and outcomes. An operational model of collaboration is constructed, with different propositions for future empirical measurement. This study provided a practical framework for business. Managers and human resource practitioners could apply this model, ensuring that the antecedents are strengthened and that collaboration processes are monitored.

INTRODUCTION

Intellectual capital is considered the competitive advantage of companies (Sanker, 2012). Leveraging this capital requires managing complex organisational and inter-organisational interdependencies, inducing a need for collaboration (Thomson and Perry, 2006). Collaboration can be defined as a complementary relationship where people collectively create a result that is more than the sum of the individual inputs (Sanker, 2012; Thomson and Perry, 2006). At a societal level, improving public and community services can be enhanced via partnerships between public and private sectors (Marek, Brock and Savla, 2015). In order to fulfil consumer requirements, alliances between product suppliers, technology experts and delivery companies are becoming more common (Sanker, 2012). Within organisations, effective sharing of best practices and expertise could improve innovation, problem solving, processes and customer delivery (Marek *et al.*, 2015; Taylor, 2013; Hansen and Nohria, 2004). Hence, to remain competitive, today's leaders do not only concentrate on strategy, more so, they are concerned about implementing it through the combined efforts of their people (Barber and Goold, 2014).

Despite the advantages of collaboration, there are many practical challenges in achieving it. Finding ways to make quality collective decisions can be difficult when individual agendas clash (Kaats and Opheij, 2014). If roles are not well defined, individuals can feel disempowered (Orchard, King, Khalili and Bezzina, 2012). Inefficient communication can create barriers to effective teamwork (Patel, Pettitt and Wilson, 2012). Organisations can also be at risk of over collaboration (Cross and Gray, 2013; Hansen and Nohria, 2004). It has been indicated that overburdening people with the requirement to collaborate can impair the completion of their designated work (Cross and Gray, 2013). This can result in work overload and ill-health. Allen and Wilson (2003) identify two key causes of information overload that are linked to collaboration: (1) The pressure to include the opinions of every possible person; and (2) Too many people involved in decision-making.

PROBLEM INVESTIGATED

An improved understanding of the conditions for effective collaboration and the associated practices could be useful to inform business practices (Patel *et al.*, 2012). Few organisations understand the factors that contribute to effective collaboration (Ales, Rodrigues, Snyder and Conklin, 2011). With this lack of understanding, only some organisations are able to reap the benefits and avoid the potential pitfalls when setting up collaboration endeavours. To assist understanding, a diversity of models and concepts on collaboration exist. Many of these focus on only one or two components of collaboration, either the antecedents, processes or outcomes, although not necessarily using this terminology. As far as could be established, what is lacking is a consolidated view of academic research on collaboration, that distinguishes antecedents, processes and outcomes in a practical way that can help businesses implement collaboration effectively.

RESEARCH OBJECTIVES

The main aim of the research was to develop a model of collaboration that synthesises key concepts from the literature and that can be applied in a business environment. An enhanced understanding of collaboration could help organisational managers prepare their environment for collaboration. Furthermore, this may help them manage the process and evaluate the desired outcomes.

LITERATURE REVIEW

Gray and Wood (1991) propose that collaboration can be studied through its antecedents, processes and outcomes. Antecedents are pre-conditions for collaboration to transpire, including the personal characteristics in individuals that make them more suitable collaborators (Henneman, Lee and Cohen, 1995; Gray and Wood, 1991). Processes encompass the key activities involved in collaborating (Thomson, Perry and Miller, 2007; Gray and Wood, 1991). Outcomes tend to vary according to the type of business (Patel *et al.*, 2012) and the theoretical perspective adopted (Thomson, Perry and Miller, 2008). Gray and Wood (1991) conducted a study examining various theoretical perspectives within the context of antecedents, processes and outcomes of collaboration. Their conclusion was that none of these theories provide a robust model of the construct. Similarly, Henneman et al (1995: 64) studied the “defining attributes, antecedents, consequences and empirical referents” of collaboration. The investigation was conducted in the context of health care professionals and identified elements that contribute to collaboration. The process component was not however distinguished in this study. The authors concluded that models of operationalising collaboration require further investigation. Petri (2010) also conducted a study in the health care industry and identified attributes, antecedents and consequences of collaboration. Similarly Petri’s study did not define the process components.

Various other studies on collaboration apply alternative methods to conceptualise the construct. For example, Bronstein (2003) identified a two part model; five components of interdisciplinary collaboration and the influences on collaboration. When applying the criteria of antecedents,

processes and outcomes, the influences can be likened to antecedents and the five components appear to focus on the process of collaboration. In a qualitative study to verify the social processes underlying collaborative partnerships, Tsasis (2009) underscored the importance of good interpersonal relationships. These social processes referred to are also supported by structural processes such as establishment of a common purpose, goals, values and clarity of deliverables. This model did not define antecedents or outcomes. As part of a curriculum development for health and human service professionals in the healthcare services, a competency framework for collaborative behaviour was developed (Wood, Flavell, Vanstolk, Bainbridge and Nasmith, 2009). This included collaborative decision-making, understanding roles and responsibilities, team functioning, information management and exchange, and continuous quality improvement. These elements are considered to focus primarily on the processes of collaboration. In a study to develop a framework identifying the factors that define collaboration, Patel *et al.* (2012: 3) identified seven main groups of collaboration factors. These seven groups are named: “context, support, tasks, interaction processes, teams, individuals and overarching factors”. No reference to outcomes is made in this framework. More recently, Majchrzak, Jarvenpaa and Bagherzadeh (2015) conducted a study on the changes that occur during collaboration and the effect on outcomes. Changes were observed through six elements; “contract frame, interaction style, decision making control, organisational structure, actor composition and between-partner differences” (Majchrzak *et al.*, 2015: 1342). These elements are considered to describe both antecedents and processes of collaboration. The success rate of outcomes was evaluated by case researchers, however specific outcomes were not disclosed in this study. The results indicated that successful outcomes were more likely to transpire when changes occurred during the collaboration.

Several authors explain collaboration in terms of steps or stages (Levesque 2012; Frey, Lohmeier, Lee and Tollefson, 2006; Gajda 2004; Hudson, Hardy, Henwood and Wistow, 1999). This approach is deemed to be useful when applied to planning and assessing collaboration and focus on the process elements. Specific action steps are outlined which can be implemented and monitored (Frey *et al.*, 2006; Peterson, 1991). These approaches also highlight that collaboration occurs in degrees from limited collaboration to fully effective collaboration (Gajda, 2004).

There appear to be minimal studies on the relationship between collaboration processes and outcomes (Ales *et al.*, 2011; Thomson *et al.*, 2008; Henneman *et al.*, 1995). A reason for this is because researchers often combine antecedents, processes and outcomes. The result is that mediating and outcome variables are not distinguished (Thomson *et al.*, 2008).

A synthesis of the literature reveals themes across the attributes of collaboration:

- Collaboration requires planning and careful design, relevant to the goals (Kaats and Opheij, 2014; Levesque, 2012; Careau *et al.*, 2011; Hudson *et al.*, 1999).
- Collaboration is a developmental process and requires reflection, review and learning (Frey *et al.*, 2006; Gajda, 2004; Peterson, 1991).
- Collaboration has both structural and relational elements (Majchrzak *et al.* 2015; Patel *et al.*, 2012; Careau *et al.*, 2011; Thomson *et al.*, 2007; Tsasis, 2009; Mattessich *et al.*, 2001). The structural dimension refers to the mechanisms that exist to facilitate social interaction, while the relational dimension pertains to the quality of the relationships between individuals.
- Collaboration contains tension between autonomous and group goals (Tsasis, 2009; Thomson *et al.*, 2007; Hudson *et al.*, 1999).
- Collaboration is embedded in environments that have permeable boundaries and occurs at all levels of the organisation (Woodland and Hutton, 2012; Srivastava and Banaji, 2011).
- Collaboration is based on continuous dialogue involving reflection, questioning and clarification which inform collaborative action going forward (Bronstein, 2003; Henneman *et al.*, 1995; Patel *et al.*, 2012; Peterson, 1991; Thomson *et al.*, 2007; Wood *et al.*, 2009).

From this literature review it is evident that collaboration has been explored from varying perspectives, all contributing to the understanding of the construct. There is little research evidence of

an integrated model of collaboration that clearly distinguishes antecedents, processes and possible outcomes that can inform generic business practices.

METHOD

Research approach

This non-empirical theoretical study applied a deductive approach, whereby collaboration was investigated theoretically and propositions deduced (Eriksson and Kovalainen, 2008). The aim of the research was to provide clarity of the collaboration construct through a model building approach that made conceptual categories clear (Mouton, 2013). This was conducted through a comprehensive investigation of postulated theories. Links between theoretical constructs were explained by means of a conceptual model of collaboration, followed by broad theoretical propositions.

Data gathering

Various peer reviewed articles were accessed using predominantly EBSCO host, Academic Search Complete. Searches included keywords such as collaboration, collaboration frameworks, theories, models, measurement instruments and collaborative culture. Related concepts such as knowledge-management, social capital and social exchange theory were also searched and applicable journal articles and books on collaboration were sourced. The time period under investigation focused on research from the early 1990s to the most currently available research. Most of the research utilised was published in the last decade to ensure that the majority of the material focused on the latest thinking. Articles and books utilised for the research were selected based on their inclusion of: collaboration definition/s, framework/s, factors of collaboration, conceptual models or measurement models, steps or conditions to achieve collaboration or a collaborative culture.

Data analysis

A deductive approach was applied through conducting a preliminary literature review where various concepts of collaboration were reviewed. An appropriate taxonomy for examining these elements of collaboration was selected; antecedents, processes and outcomes. This was followed by a comprehensive literature review, where key themes were identified, grouped and categorised within the taxonomy of antecedents, processes and outcomes. It was deduced that a distinction between two categories under collaboration processes, namely: structural and relational was necessary. The themes were coded according to the core essence of the concept. The model was created with directional arrows to indicate the theoretical direction and links of concepts, clarified by suggested propositions.

FINDINGS

This theoretical investigation followed a deductive delineation of the following five collaboration antecedents, two key collaboration processes with subcategories and three core categories of outcomes. These are described below.

Collaboration antecedents

Five key antecedents are specified namely: (1) a common purpose, (2) mutuality, (3) enabling environment, (4) trust, and (5) specific personal characteristics.

A common purpose

Scholars of collaboration assert that attainable goals, a shared vision and a unique purpose are key factors of successful collaboration (Kaats and Opheij, 2014; Patel *et al.*, 2012; Gajda, 2004; Hansen and Nohria, 2004; Mattessich *et al.*, 2001; Gray and Wood, 1991). While this is referred to in various

ways, it becomes evident that ultimately a common purpose will bring and keep groups together. Having or providing a common purpose can therefore be considered an antecedent to collaboration.

Mutuality

Mutuality occurs when each party contributes unique resources that other parties can benefit from (Thomson and Perry, 2006). These resources include people, finances and materials (Mattessich *et al.*, 2001). For example, knowledge is a key mutual exchange enabler (Miller and Katz, 2014; Patel *et al.*, 2012; Sanchez, 2012; Sanker, 2012). By facilitating a knowledge sharing culture, organisations are able to use knowledge as an enabler to achieve business goals (Taylor, 2013). Commonalities in mission, culture and commitment to the collaboration goals help facilitate successful exchange of resources (Thomson *et al.*, 2007). Mutuality is also the vested interests that parties share in the process and outcomes of the collaboration (Mattessich *et al.*, 2001).

An enabling environment

Trying to achieve any organisational objective without providing an enabling environment may compromise people's abilities to succeed. In this regard, factors related to the work environment have been found to have a strong influence on how people operate (Patel *et al.*, 2012). The leadership of the organisation play a critical role in creating and maintaining a collaborative environment through connecting people, their knowledge and expertise (Kaats and Opheij, 2014; Patel *et al.*, 2012; Mattessich *et al.*, 2001). Leaders of collaboration must have credibility and gain acceptance by the groups (Kaats and Opheij, 2014). They must be able to manage both structural and relational processes and hence it is important that they are skilled in organising and in relationship building (Mattessich *et al.*, 2001). Both transactional and transformational leadership styles are associated with effective collaboration (Patel *et al.*, 2012).

Transactional leadership required for collaboration encompasses the provision of resources, managing tasks and the implementation of related consequences or rewards for performance (Patel *et al.*, 2012; Yang, 2007). Provision of systems and processes that support the collaboration objectives and removal of obstacles are key; the organisational design and policies should align to the collaboration objectives, and the physical environment is important. Proximity of collaborators and general working conditions such as lighting, noise, temperature and safety are all factors that could influence people's ability to collaborate (Patel *et al.*, 2012).

Transformational leaders play a major role in formulating, maintaining and changing organisational culture (Patel *et al.*, 2012; Schein, 2010; Schabracq, 2007). This is described as the shared attitudes, beliefs and values of a group and to a degree is an intangible concept that is difficult to define (Patel *et al.*, 2012; Schein, 2010). For organisations aspiring to achieve a collaborative culture, transformational leadership can be considered a critical success factor. Underlying the culture is the belief that working towards a collective purpose supersedes the pursuit of self-interests (Cha, Kim, Lee and Bachrach, 2015). This is a mind-set that transformational leaders should embrace and influence others to adopt. It is also suggested that transformational leaders can improve the quality of communication, extent of cohesion and improve the level of trust within teams resulting in improved teamwork quality (Cha *et al.*, 2015; Patel *et al.*, 2012). Thus, teams with these qualities are better equipped to collaborate. A collaborative culture can be defined as very specific behaviours and values that encourage people to work together (Sanchez, 2012). Three values regarded as leading to this type of culture have been identified as the confidence that all parties will be involved, the ownership of contribution to the goal and a sense of belonging to a larger group (Sanchez, 2012).

Trust

Trust is one of the most cited factors underlying successful collaboration (Kaats and Opheij, 2014; Patel *et al.*, 2012; Sanchez, 2012; Barczak, Lask and Mulki, 2010; Campbell, 2006; Wong, 2006; Bijlsma and Koopman, 2003; Mattessich *et al.*, 2001). Trust is based on a belief that parties will be honest in agreements and commitments, adhere to their commitments and not exploit other parties. Thomson *et al.* (2007) position trust as a relational element of collaboration. Hudson *et al.* (1999)

propose that co-operation is more effectively obtained when based on a sound relationship foundation rather than in a formally designed role structure. In fact, a potential cost resulting from having excessive formal controls is a decline in level of trust (Christ, Sedatole, Towry and Thomas, 2008). One of the implications is that people feel that controls are a sign of mistrust regarding their capability and character. Trust is considered key to collaboration as it enhances simplicity in transactions between parties (Thomson *et al.*, 2007).

Trust has cognitive and affective components (Johnson and Grayson, 2005). Cognitive trust is the belief that an individual will and can fulfil their obligations. This is based on the perceiver's prior knowledge of the other's abilities and reputation. Affective trust, although also impacted by reputation, is based predominantly on previous interactions characterised by a positive experience. In a study across 82 university teams a positive relationship between trust and a collaborative culture was found to exist (affective trust: $r = .43$; $p = .02$, cognitive trust: $r = .33$; $p = .03$) (Barczak *et al.*, 2010). Given the dynamic and developmental nature of trust, it is considered both an antecedent and a process component of collaboration.

Specific personal characteristics

There are several personal characteristics that are likely to make individuals better collaborators and enhance the relational quality of collaboration. When selecting people to be part of collaborative groups, it is important that they demonstrate an openness to understanding the motives and interests of others (Campbell, 2006). Respect for these interests as well as the values, cultural norms and constraints of others are essential (Mattessich *et al.*, 2001). Coupled with this is a belief that they themselves have something valuable to offer (Miller and Katz, 2014). It is critical that individuals are able to place collective interests above their own (Srivastava and Banaji, 2011; Mattessich *et al.*, 2001). It is however also valuable for individuals to see the collaborative effort as supportive of their own interests too (Mattessich *et al.*, 2001).

An important quality of collaborators is understanding and owning the impact of one's own actions on others (Bushe, 2006). Being cognisant of the emotions of oneself and others leads to improved relationships (Barczak *et al.*, 2010). It facilitates the ability to manage difficult emotions in oneself and hence increases capacity for engagement with others (Hugues, Patterson and Bradford Terrell, 2005). Awareness and articulation of the emotions of others indicates to them that their feelings are acknowledged. This can help to transform a potentially difficult exchange to a collaborative union (Hugues *et al.*, 2005). Given the many decisions involved in a collaboration, which cannot fully address everyone's needs, the ability to compromise is a crucial characteristic needed by collaborators (Mattessich *et al.*, 2001). Seeking information and advice from others, based on a good understanding of their unique capabilities, should assist collaborators (Wood *et al.*, 2009). Finally a positive attitude is also considered a characteristic which may pave the way to effective collaboration (Bronstein, 2003).

Collaboration processes

The antecedents should be in place to enable collaboration, but this does not guarantee a successful outcome because the activities involved in the process of collaborating are equally important. Success is not necessarily a definitive measure, as there can be various degrees of integration throughout collaboration (Woodland and Hutton, 2012; Frey *et al.*, 2006; Gajda, 2004; Peterson, 1991). For example, events in the external environment such as regulatory, market, economic and technological changes have the potential to influence the collaboration (Majchrzak *et al.*, 2015). Internal conditions such as a change in ownership, strategic direction or variations in key role players may also have a bearing on the collaboration (Majchrzak *et al.*, 2015). These changes can shift the goals, roles and the interpersonal dynamics. This makes it increasingly important to constantly reflect, review and learn during the collaboration process (Frey *et al.*, 2006; Gajda, 2004; Peterson, 1991). Continuous dialogue involving questioning and clarification helps to determine actions needed (Patel *et al.* 2012; Wood *et al.*, 2009; Thomson *et al.*, 2007; Bronstein, 2003; Henneman *et al.*, 1995; Peterson, 1991).

Relational processes

Healthy interpersonal connections are fundamental to effective collaboration (Gajda, 2004). These interaction processes are just as, if not more important than the structural processes. As the collaboration develops, changes to the relational dynamics are likely to occur. The following changes are identified as typical in the development of an effective collaboration (Frey *et al.*, 2006; Gajda, 2004; Mattessich *et al.*, 2001; Peterson, 1991):

- Interaction increases;
- Role clarity increases;
- The level of trust develops;
- The level of formality in communication increases initially and then both informal and formal communications are evident;
- The level of shared decision making increases;
- The level of conflict increases; and
- Productivity of the group increases.

Being aware of these group dynamics may help in managing group processes. Caution needs to be exercised not to expect them to proceed in perfect sequence. Other factors such as major decisions required and group learning curves could also influence the development of the group (Wheelan, 2005).

Structural processes

Establishing structural processes helps to focus collaboration on the right things at the right time (Kaats and Opheij, 2014). These processes encompass the key activities required to make certain that outcomes are achieved. They involve setting up the governance structures and operationalising them (Kaats and Opheij, 2014; Thomson *et al.*, 2007). Governance structures determine information exchange and how outcomes will be disseminated (Thomson *et al.*, 2007). Thus, clear roles and policy guidelines as well as formal and informal communication links must be established (Mattessich *et al.*, 2001). A key aspect of governance involves agreement in the mission and purpose of the collaboration (Kaats and Opheij, 2014; Patel *et al.*, 2012; Sanchez, 2012; Petri, 2010; Mattessich *et al.*, 2001; Quicke, 2000). Collaboration goals need to be clearly articulated and communicated to all stakeholders (Patel *et al.*, 2012; Mattessich *et al.*, 2001; Hudson *et al.*, 1999). This preliminary step is a strong determinant of the quality of the collaboration outcomes. The perception that the goal can only be achieved through the inputs of both groups is likely to increase the effort to collaborate (Kaats and Opheij, 2014).

Further to the setting of goals, careful design of the collaboration is an important step (Hudson *et al.*, 1999). A starting point is to ascertain which stakeholders will be involved in the process and their roles (Kaats and Opheij, 2014; Levesque, 2012). Potential duplication of roles or gaps which might occur should therefore be identified and prevented (Hudson *et al.*, 1999). Consideration should also be given as to whether the current processes and systems are enabling a collaborative culture and if any adjustments are required. Technology systems that facilitate collaboration have the benefit of supporting connections between people and groups (Patel *et al.*, 2012). Of particular importance is the implementation of knowledge management systems that provide easy access to information (Patel *et al.*, 2012). Work standards, methods and frameworks to guide the collaborative relationships must also be developed (Patel *et al.*, 2012; Sanchez, 2012; Campbell, 2006). Finally, in order to assess achievement of the collaborative goals, measurement mechanisms should be developed (Patel *et al.*, 2012; Thomson *et al.*, 2007).

A summary of the key process steps derived from the discussion follows:

- defining an agreed mission statement for the collaboration;
- articulating the collaboration goals;
- allocating roles and responsibilities and ensuring that tasks are co-ordinated;
- agreeing on the rules of engagement to ensure behaviour and practices are aligned; and
- designing monitoring and feedback mechanisms.

Outcomes of collaboration

Creating a clear distinction between collaboration processes and outcomes can be challenging (Thomson *et al.*, 2008). Certain outcomes can also be classified as processes. An example of a positive outcome of collaboration could be a perceived improvement in the quality of relationships (Thomson *et al.*, 2008). However, this discussion is based on tangible reported results that can be achieved through effective collaboration versus perception based outcomes. Tangible results are observed at a societal, business and individual level (Miller and Katz, 2014; Murphy, Arenas and Batista, 2014; Barber and Goold, 2014; Kaats and Opheij, 2014; Hansen and Nohria, 2004). There are a number of examples regarding the beneficial outcomes of collaboration at a broad societal level. For instance, a collaboration that resulted in raising more than \$63 million for humanitarian aid in 1985 was through artists collectively producing the song We are the World (Sanker, 2012). Collaboration has also enhanced research and development. An example in the medical field is found in the development of HIV medication: over two decades ago, there was only one type of medication for people who were affected by HIV (Sanker, 2012). As a result of collaboration on research in the health care profession, more than 33 antiretroviral drugs are currently available (Sanker, 2012).

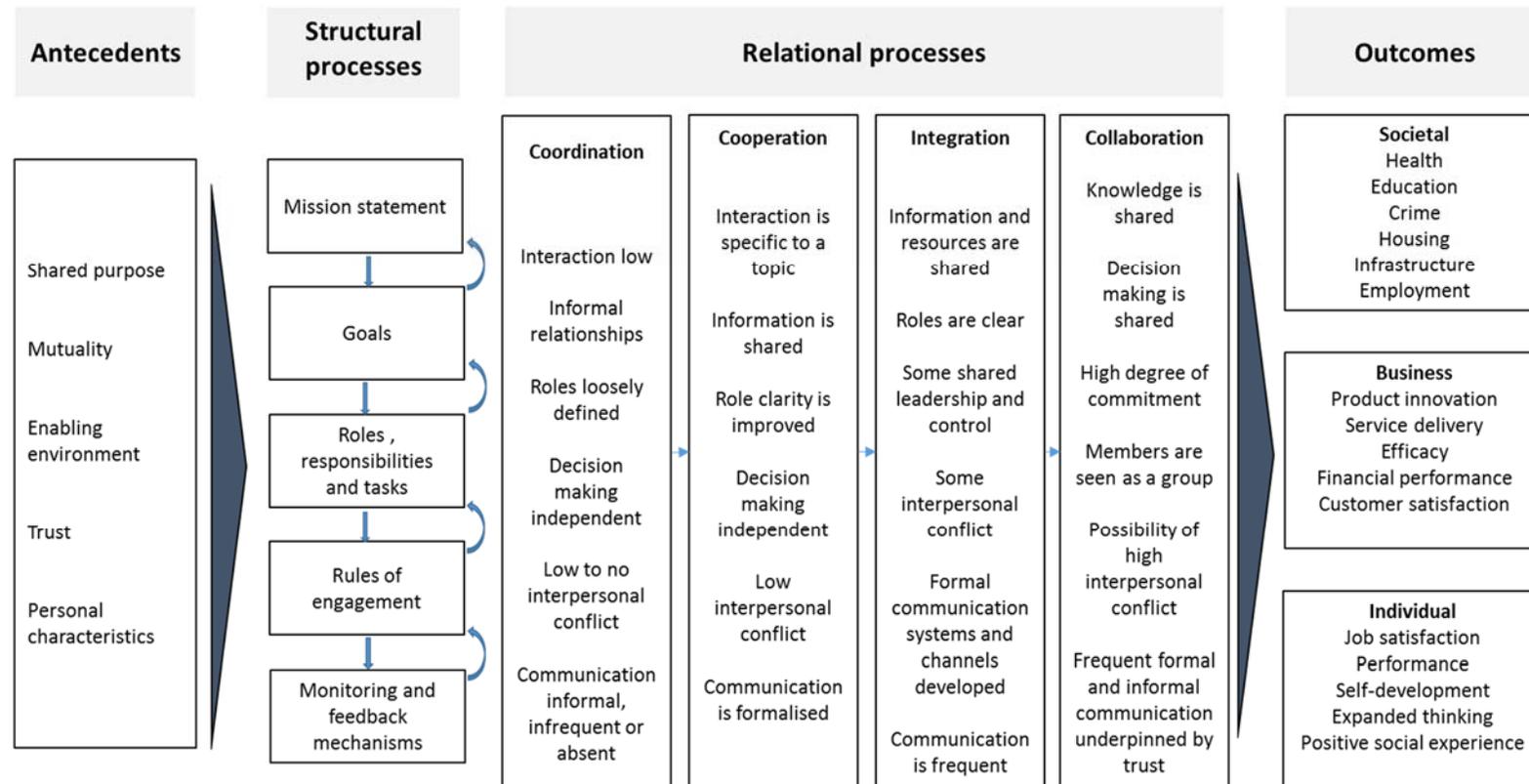
There are examples where collaboration is credited as the driver for producing measureable business outcomes. Delta Airlines bought 10% of Priceline.com, a start-up on-line ticketing service. In return, Delta's tickets were sold using Priceline's technology (Barber and Goold, 2014). In two years, Delta made a pre-tax profit of \$1 billion. Priceline.com also benefited financially and established their name in the market (Barber and Goold, 2014). Another example is Verizon Business and Microsoft where collaboration over a number of years was cited as one of the main levers of company performance in a partnership (Sanker, 2012). The increase of a collaboration index was coupled with an increase in profitability, sales growth, customer satisfaction, improved productivity and enhanced product quality and development. These benefits likewise apply to inter-organisational collaboration. BP (British Petroleum) announced a reduction of 20% in their required working capital in the United States (Hansen and Nohria, 2004). This was achieved through a business unit head leveraging the expertise of her peers in the UK and Netherlands operations.

The advantages of collaboration are not limited to organisational benefits, as a collaborative culture can improve employee morale and retention (Murphy *et al.*, 2014). Exposure to collaboration allows individuals to perform roles other than their own, enhancing self-development (Sanchez, 2012; Cross, Martin and Weiss, 2006). People also experience expanded thinking, broadened and diverse networks and inspiration from co-collaborators (Bushe, 2006; Cross *et al.*, 2006). Collaboration can also provide positive social experiences and enhance trust, and strong social connections have been found to promote positive mental health (Bond, Lusher, Williams and Butler, 2014; Tsasis, 2009).

Operational model of collaboration

The previous discussion explored the antecedents, processes and outcomes of collaboration from the perspectives of various authors. Based on this discussion, an operational model of collaboration is proposed in Figure 1. For collaboration processes, a distinction between structural and relational processes is reflected in the operational model. The outcomes of collaboration are not exhaustive, but indicative of the possible impact of collaboration.

FIGURE 1
OPERATIONAL MODEL OF COLLABORATION



The model in Figure 1 leads to the following broad propositions:

- Proposition 1: Shared purpose positively influences societal, business and individual outcomes.
- Proposition 2: Mutuality has a positive effect on societal, business and individual outcomes.
- Proposition 3: An enabling environment positively influences societal, business and individual outcomes.
- Proposition 4: Trust has a positive impact on societal, business and individual outcomes.
- Proposition 5: Personal characteristics lead to positive societal, business and individual outcomes.
- Proposition 6: Should structural processes be in place, it will lead to positive societal, business and individual outcomes.
- Proposition 7: Should structural processes be in place, it will positively influence relational processes.
- Proposition 8: Optimal relational processes will lead to improved business and individual outcomes.

DISCUSSION

Collaboration is considered to be a complex concept (Patel *et al.*, 2012; Thomson *et al.*, 2007). This model therefore aimed to provide a simplified illustration of collaboration antecedents, processes and possible outcomes. The intention was for the model to be used as a preliminary framework for further exploration of the various components. The results of this study revealed that little research has been conducted on the relationship between collaboration processes and outcomes. The majority of information published on collaboration are related to antecedents. What ultimately became evident was that the process has both relational and structural components. The proposed model implies that the structural processes should be defined in the beginning stages of the collaboration, with regular reviews. The relational processes are deemed to be dynamic and occur throughout the collaboration. Although these relational processes are depicted as sequential, it is acknowledged that in practice they may not transpire in this manner.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The data search was limited to EBSCO-host. Searches in other search engines and with seed words similar to collaboration might consequently have provided additional information. Future research could investigate the different propositions that were formulated. The model does not account for external influences. An area of future research could therefore be on the influence of external factors on the quality of collaboration processes and outcomes. These could be factors in the environment such as economic, political or socio-cultural conditions.

MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The operational model of collaboration can assist organisational leaders and human resource practitioners in implementing effective collaboration across organisations, divisions or across teams. Prior to embarking on a collaborative effort, the antecedents of collaboration should be considered, and organisations' reviewed in relation to these. Sharing a common purpose and the existence of mutuality within the relationship are the first considerations. Trust can be considered an antecedent, however this element can also be reciprocal, and increase or decrease throughout the process of collaboration. The personal characteristics of individuals expected to collaborate can be evaluated according to the success criteria. For instance, leaders should be equipped to drive the collaborative effort, including the transformational and transactional leadership requirements. Once these antecedents are established, the structural processes should be set up. These processes will be specific

to each collaboration and the degree to which they are effectively set up could impact the relational processes. The outcomes as depicted in the operational model can be translated to specific goals. As the collaboration progresses, the relational processes should be monitored and managed. Similarly the goals must be assessed throughout the collaboration.

CONCLUSION

This study set out to explore collaboration and develop an operational model to provide organisations with a framework to implement effective collaboration. Literature provided information, guiding the building of an integrated model acknowledging the antecedents, processes and outcomes of collaboration.

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