RESEARCH ARTICLE

A framework for building and maintain trust in remote and virtual teams [version 1; peer review: 1 approved with reservations]

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Abstract

Trust is an important concept in assessing and measuring business behaviour from an organisational performance and culture lens, and has become a source of competitive advantage for organisations especially within the knowledge economy. Studies show that organizations with a high level of trust have increased employee morale, more productive workers, and lower staff turnover. Most organisations factor and measure trust as part of keeping a pulse on their organisational culture and design their initiatives around building and maintaining trust. While it is not impossible to build trust virtually, it certainly is harder and requires a different set of considerations. There has been a big shift by organizations catering for more remote and flexible work conditions over the past decade with the “virtual team” becoming the norm. The recent impacts of the COVID-19 pandemic have forced most, if not all, organizations to move in that direction faster than planned. With this movement to more remote working conditions, that are likely to have longer-term impacts, companies will be faced with challenges that virtual teams typically face in establishing and maintaining trust. This paper sought to highlight a framework that organisations, with remote and virtual teams, can use as a guideline to build and maintain trust. The framework suggests that trust is reliant on components from three key areas, namely 1) Foundational, 2) Organisational and 3) Individual. Components related to external aspects that contribute to trust, such as laws, reputation and society, have not been factored in. It is acknowledged that this will play a role in organisational and team trust but has been excluded from the scope of this research.

Keywords

trust, remote, virtual, organizational culture

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Giovani da Silveira confirms that the author has an appropriate level of expertise to conduct this research, and confirms that the submission is of an acceptable scientific standard. Giovani da Silveira declares they have no competing interests. Affiliation: Haskayne School of Business, University of Calgary.

Introduction

Trust is an important concept in assessing and measuring business behaviour from an organisational performance and culture lens (Bachmann & Inkpen, 2011), and has become a source of competitive advantage for organisations especially within the knowledge economy (Barney & Hansen, 1994; Zanini, 2007 as cited in Puçétaité *et al.*, 2015). Studies show that organizations with a high level of trust have increased employee morale, more productive workers, and lower staff turnover (Wichtner-Zoia, 2014). Most organisations factor and measure trust as part of keeping a pulse on their organisational culture and design their initiatives around building and maintaining trust. Many of these initiatives focused on building trust, rely on individuals having established face to face encounters (Nydegger & Nydegger, 1986). While it is not impossible to build trust virtually, it certainly is harder and requires a different set of considerations (Greenberg *et al.*, 2007).

There has been a big shift by organizations catering for more remote and flexible work conditions over the past decade with the “virtual team” becoming the norm (Ford *et al.*, 2017). Some of this has been driven by new generation talent requirements and cost reduction measures, but the recent impacts of the COVID-19 pandemic have forced most, if not all, organizations to move in that direction faster than planned. As of March 2020, most organisations have found themselves having to adapt overnight to cater for remote and flexible teams. While organisations are currently dealing with the immediate impacts of COVID-19, the longer-term repercussions are yet to kick in. The World Economic Forum (WEF) has indicated that the longer-term impacts could be worse than the 2008 economic recession (WEF, 2020). As a result of this and with growing pressure on organisations to offer higher levels of safety and precaution at work, organizations are likely to consider continuing their remote based working conditions beyond 2020 (WEF, 2020). Some tech giants have already indicated this, such as Twitter, Google, Facebook.

With this movement to more remote working conditions, which are likely to have longer-term impacts, companies will be faced with challenges that virtual teams typically face in establishing and maintaining trust (Owens & Khazanchi, 2018). This will require different considerations and actions, as compared to in-person teams, and this paper seeks to highlight a framework that organisations, with remote and virtual teams can use as a guideline to build and maintain trust.

Definition of trust

Trust is an intrinsically relational construct (Bachmann *et al.*, 2015) and described as “an attitude, or ‘state of mind’ that an individual develops over time in the face of experiences with

other relevant individual actors” (Bachmann & Inkpen, 2011). Trust between two or a set of individuals is premised on risk-taking to rely on one another (Bachmann & Inkpen, 2011) where one party is willing to be vulnerable to the actions of another with limited control (Breuer *et al.*, 2016), but trusting that the trustee will act in the best interest and perform an action that is important to the trusting party (Ford *et al.*, 2017). Most current literature describes a trustworthy person as honest, able and caring, and factors in components of integrity, ability and benevolence (Greenberg *et al.*, 2007).

According to business ethics literature, trust is fundamental in all relationships (Brien 1998; Castaldo *et al.*, 2010; Hosmer, 1995; Swift, 2001 as cited in Kujala *et al.*, 2016), generates supportive behaviour, can save transaction costs and contributes to overall efficacy within an organisation. It is therefore fundamental for an organisation and its long-term success (Kujala *et al.*, 2016).

Trust as a component of organisational and team performance

Trust can be both interpersonal, as well as inter-organisational, and is a requirement for building successful organisational relationships where the levels of trust accumulate over time, ultimately maturing and strengthening the relationship (Camén *et al.*, 2011). Trust within a broader organisation context is critical for minimizing uncertainty, managing risks and operating costs, building and enhancing employee productivity and commitment, supporting business transactions and facilitating effective market participation. Therefore, a loss of trust can result in detrimental internal and external organisational performance (Bachmann *et al.*, 2015; Puçétaité *et al.*, 2015). The value of organisational trust has also been attributed to an organisation’s ability to reduce transaction costs, leading to new ideas and fostering their innovation capabilities (Bachmann & Zaheer, 2006, as cited in Bachmann & Inkpen, 2011).

Regardless of the evidence and knowledge of the contribution of trust to organisational performance, many organisations still focus on an individual’s performance as the biggest metric attributable to company performance. As a result, organisations spend an enormous amount of time and resources improving and measuring performance but not nearly enough on trustworthiness, even though a loss or lack of trust can have far bigger repercussions (Sinek, 2020). An organisation is far better off with mediocre performers that inspire high levels of trust rather than high-performing employees with a low level of trust, as they are likely to impact the overall organisational culture, broader trust levels and ultimately organisational performance (Sinek, 2020).

As with organisational performance, there are many factors that contribute to team effectiveness; however, trust is known to be one of the key contributors (Ford *et al.*, 2017) as it’s proven to be positively correlated with team effectiveness (Breuer *et al.*, 2016). Clark, Clark, & Crossley’s (2010) research (as cited in Ford *et al.*, 2017) shows that teams with a high degree

of trust are “more proactive, more focused on task output, more optimistic, more frequently initiate interactions, and provide more substantive, productive feedback”. This is particularly important in high performing and meritocratic cultures where a lack of trust can limit team members willingness to share information or be collaborative with each other, impeding the team and certain individuals’ performances (Owens & Khazanchi, 2018).

Despite the importance of trust in organisational and team relationships, there is a need to manage trust balances, i.e. too high or low is detrimental and organisations should aim to strike the right balance (Bachmann *et al.*, 2015). High levels of trust within teams contribute to productive working relationships but coupled with strong ties, it can also account for false organisational unity, which can result in group think, negligent risk management, low levels of innovation and exclusion of different yet competent others (Kujala *et al.*, 2016). In order to maintain the ethical culture and behaviour within and organisation, both levels of trust and distrust can co-exist as multi-dimensional and dynamic constructs (Kujala *et al.*, 2016). Given that trust can have negative consequences, at an interpersonal and organisational level, it is still imperative for society as a whole to operate on a surplus of trust (Bachmann *et al.*, 2015).

Types of trust and how to establish them amongst individuals and teams

The foundation of trust is generally premised on values, standards and principles between two or more parties with the expectation of mutual fairness and honesty (Pučetaitė *et al.*, 2015). Trust typically develops in two ways. The first is called affective trust and is founded on emotional connections established through a mutual relationship, centered around care and concern for each other, resulting in a social bond. The second is called cognitive trust, which is based more on the rationale or evaluation of one’s performance reliability and competence (Greenberg *et al.*, 2007).

There are many elements that are important to establishing trust between two or more individuals. These include leadership role-modelling, integrity, benevolence, fairness, and inclusiveness (Tuason, 2007). However, inclusiveness is subject to one’s propensity to trust, which is based on his/her past experiences, beliefs, values, and feelings. This influences how vulnerable that individual is willing to be and therefore each person’s capacity and propensity to trust is different (Tuason, 2007). Trust that develops based on personal face-to-face experiences is called interaction-based trust (Bachmann & Inkpen, 2011), whereas trust based on one’s personal traits or previous knowledge about them is called interpersonal trust (Camén *et al.*, 2011). Trust can also be established through a third party who acts as a broker by being a proxy for the unknown counterpart, known as trust transferability (Bachmann *et al.*, 2015). This requires the third party to have a trusted relationship with each of the individuals who do not know each other, and act as a guarantor to develop the trust (Bachmann & Inkpen, 2011). Institutional based trust is relationally embedded within the context of the institutional

environment and focuses more on the favourable assumption of future behaviour within the context of that environment (Bachmann & Inkpen, 2011). When organisations need to make decisions swiftly or require rebuilding of teams, business units or the organisation itself, often during times in a crisis, institutional trust is essential (Bachmann & Inkpen, 2011).

When new teams are formed, swift trust is established and based on initial judgements of trustworthiness, centered around personality traits, stereotyping, initial interactions and team trust (Ford *et al.*, 2017). Team trust is an accumulation of the trust shared amongst team members based on a shared set of expectations and their willingness to be vulnerable to the actions of the rest of the team without having full control of other team members (Breuer *et al.*, 2016). Following this initial swift trust, cognitive trust forms during the early stages of a team’s life and is based on the team’s competence (i.e. ability to accomplish the task) and the perception of others’ integrity through interactions with the team. As the team’s life grows, the dependency of cognitive trust related to competence reduces as team members get to know each other more. At this point, affective trust becomes more important, which is based on the continued assessment of integrity and benevolence (Greenberg *et al.*, 2007).

Within organisations, trust is formed at the company-level (inter-organisational) and not directly linked to the individual or their interpersonal relationships. Therefore, it is important to differentiate between trusting a person and trusting an organisation. For this reason, it is important that an organisation acts in a trustworthy way, in addition to the individuals it employs (Camén *et al.*, 2011).

The role of institutions/organisations in building and maintaining trust

Institutions and organisations are made up of commonly accepted practices, behaviours and rules, which guide employees on their behaviour and actions (Bachmann & Inkpen, 2011). Many scholars believe that institutions play a critical role in helping to establish trust in inter-organisational relationships (Bachmann & Inkpen, 2011). This can be done through established routines and practices that help facilitate communication, channel interactions between individuals, as well as through third party guarantor relationships (Bachmann & Inkpen, 2011).

Institutional-based trust is very similar to interaction-based trust, however, may be seen as weaker since interaction-based trust is generated based on intensive face-to-face encounters (Bachmann & Inkpen, 2011).

Remote and virtual teams

Remote or virtual teams can be described as a set of two or more individuals who are organisationally or geographically dispersed that are unable to physically work together on a day to day basis and rely on technology and communication platforms to accomplish their common goal (Townsend, DeMarie, & Hendrickson, 1998 as cited in Ford *et al.*, 2017). Traditional definitions of remote or virtual teams focused on the

differences between face-to-face and virtual, while current literature focuses on teams along that continuum with a combination of both aspects (Fiol & O'Connor, 2005 as cited in Ford *et al.*, 2017).

Remote and virtual teams have become a common phenomenon within organisations over the past two decades (Breuer *et al.*, 2016) as a result of trying to solve two common problems, namely 1) how to organise a set of individuals based on their expertise that cross traditional organisational design clusters, and 2) how to address location specific needs without replicating the team in each location (Ford *et al.*, 2017). Today most large organisations are likely to have remote or virtual teams that sit along that continuum (Breuer *et al.*, 2016) with leaders managing individuals that they might not have met and rather are only connected with through technology (Carrison, 2017).

There are many benefits of remote and virtual teams, due to their geographic and organisational dispersion such as flexibility to draw on knowledge, diversity of language, culture and perspective, a variety of cross functional skills and better coverage of time zones. This enables organisations to meet the demands of today's hypercompetitive global environment (Greenberg *et al.*, 2007). As a result, organisations are increasingly adopting new and innovative technologies for communication and collaboration to enhance performance within these team (Greenberg *et al.*, 2007).

However, remote and virtual teams add other associated challenges, in addition to the ones experienced by face-to-face teams. These include increased complexity, reduced inclusion, and barriers on language, culture and working styles (Ford *et al.*, 2017) as a result of different location, time zones, cultural norms and multiple reporting lines (Nydegger & Nydegger, 1986). Despite there being a large set of literature available on how to manage in-person teams, there is far less literature, best practices and understanding for managing remote or virtual teams effectively (Ford *et al.*, 2017).

The role, status, and importance that each team member brings and employs in a virtual team depends largely on the value created and brought to that group. This is truer for virtual teams than face-to-face where the measure of performance in virtual teams tends to be higher (Nydegger & Nydegger, 1986).

Trust in remote and virtual teams

Handy (1995) (as cited in Nydegger & Nydegger, 1986) stated that trust cannot be established in virtual teams. However, it has been proven that trust can be established in such teams but the process and speed of establishing trust is different and requires a different set of initiatives and actions (Nydegger & Nydegger, 1986). The process required for establishing and sustaining trust in remote and virtual teams is complex (Greenberg *et al.*, 2007), as trust is very fragile in such teams and there are limited opportunities that present themselves to establish and build trust upon (Nydegger & Nydegger, 1986).

In traditional teams, trust develops from a history of face-to-face interactions between individuals that allow for interpersonal relationships to be established and result in the formation of affective trust (Greenberg *et al.*, 2007). With remote and virtual teams, there are far less or no opportunities to build trust from a basis of face-to-face relationships, at least not from the get-go. Remote and virtual teams do establish an initial swift trust based primarily on external signals (roles, reputation, rules) and intrinsic reasons that are necessary for the team to immediately start working together (Greenberg *et al.*, 2007). This is, however, based on their own dispositional trust, linked to their propensity to trust, and is less focused on an assessment of characteristics of other team members. This initial swift trust is therefore very fragile and if not built on or harnessed further, it can dissipate requiring teams to rebuild through new routes (Greenberg *et al.*, 2007). Beyond this initial swift trust, there are further challenges in converting this trust into affective trust. Remote and virtual environments present very few opportunities for individuals to observe the subtle nuance, non-verbal cues and informally interact, typically through corridor chats and coffee breaks, with each other (Ford *et al.*, 2017). Therefore it is difficult for individuals to create bonds of cohesion with fellow teammates that lead to assessments of benevolence (Greenberg *et al.*, 2007).

It is established that trust in teams is central for effective teamwork and this seems to be well accepted amongst practitioners, particularly in virtual teams (Breuer *et al.*, 2016). Individuals within teams need to be able to trust their leaders, each other and the organisations as a whole in order to be effective, particularly in virtual teams where there is less opportunity to mitigate for these challenges (Ford *et al.*, 2017). A lack of or reduced trust within teams impacts individual and team performance, results in lower employee support and ultimately increases employee turnover (Nydegger & Nydegger, 1986).

Most, if not all, remote and virtual teams rely on technology as the basis for communication and collaboration amongst team members, which has resulted in the growing presence of electronically mediated teamwork (Breuer *et al.*, 2016). Despite the sophistication and constant innovation of technology and various collaboration and communication platforms, virtual teams often fail to meet their envisioned potential (Greenberg *et al.*, 2007). Many scientists and practitioners have stressed the importance of trust as a big contributor to team effectiveness and success in electronically mediated collaboration as this often comes with feelings of uncertainty and perceived risks, which are present at much higher levels than face-to-face teams (Breuer *et al.*, 2016). This is partly because the traditional social and cultural norms that exist in face-to-face teams are not available for influence by team members operating remotely or virtually and impacts the ability to establish cooperative behaviour or build familiarity with each other that often reduces these feelings of uncertainty or perceived risks (Greenberg *et al.*, 2007). Another common challenge posed by electronically mediated teamwork is free-riding and lack of commitment, as team members don't have to "face" each other, which makes

it therefore even more critical to have a foundation of trust (Ford *et al.*, 2017).

Remote and virtual teams are here to stay, and likely to increase substantially in our current economic climate with degrees of virtuality varying across organisation. A foundation of trust is key in such teams and even more so as technological capabilities and platforms advance (Ford *et al.*, 2017).

Framework – antecedents of employee trust in remote and virtual teams

This framework indicates the key components and experiences of trust within remote and virtual teams. The framework suggests that trust is reliant on components from three key areas, namely 1) Foundational, 2) Organisational, and 3) Individual. The following section goes into depth on each of the three key areas, and their components, supported by Figure 1 to show the relationship between them.

Methodology

This framework is developed from a literature review as well as the author's own experience. The framework is positioned simply for understanding and application purposes. However, the researcher acknowledges that complexities and overlap exist amongst the various elements.

The literature review encompassed a search of articles across various databases, using terms such as “remote work”, “remote teams”, “virtual team”, “culture”, “remote culture”, “remote working environment”, “virtual culture”, “communication in remote and virtual teams”, “technology in remote and virtual teams”, “trust”, “trust in teams”, “building trust”, “trust in organizations”, “trust in remote teams”, “virtual trust”, “trust in virtual teams”. Due to the recent shifts towards remote work

and virtual teams, there is not an exhaustive list of articles available on this topic. After a review, a total of 22 articles (included within the reference list of this article) were maintained that were deemed relevant to the scope of the research. A qualitative analysis was done on all articles. This was done by coding the articles into categories that emerged. Once all categories were identified, the researcher grouped the categories into themes to build the framework.

Foundational components

The proposed foundational components consist of 1) Communication, 2) Transparency and accountability, and 3) Ethical culture. These areas are essential to any organisation, regardless of where they sit on the continuum of remote/virtual teams vs face-to-face teams. All three components are critical for building and maintaining trust between individuals and within teams and organisations, but even more so within a virtual and remote team environment. The lack of a strong foundation within organisations will constantly impair the ability to build and maintain trust regardless of other initiatives and elements in place.

Communication. Trust is paramount to all relationships, personal and business, and it is based on how, when and what is being communicated within that relationship (Denton, 2012 as cited in Owens & Khazanchi, 2018), which includes knowledge sharing related to the tasks or goals at hand (Owens & Khazanchi, 2018). There is a lot of evidence and literature that proves team effectiveness is heavily correlated with effective communication, regardless of the structure of the team (i.e. face-to-face vs remote or virtual) (Nydegger & Nydegger, 1986).

Professor Mark Mortensen (HBR, 2015) cautioned that the “social distance”, separating virtual team members from

Figure 1. Framework of the antecedents of trust in remote and virtual teams.

corporate headquarters, can create an us vs. them mentality, and that the way to combat team-alienation is to “reinforce what’s shared: the team’s purpose.” This kind of reinforcement depends on consistent communication (Carrison, 2017). The traditional forms and rules of communication in a face-to-face environment need revisiting though when dealing with remote and virtual teams to cater for the complexities of these teams and factor in elements such as time zone differences, the associated delays and feeling of contribution and inclusiveness (Greenberg *et al.*, 2007). Given that the forms, structure and rules of communication might differ when dealing with virtual and remote teams, it is expected that the interpersonal dynamics resulting from these communications will be different too (Nydegger & Nydegger, 1986), which can have an impact on levels of trust.

Remote and virtual teams rely heavily on technology for effective communication; however, this can be very constraining (Greenberg *et al.*, 2007). Regardless of the actual technology (hardware or software) used, success is reliant more on the quality of the information and how it is being communicated (Nydegger & Nydegger, 1986). Electronically mediated communication does not cater for the same levels of empathy, emotion and physical reaction that one can deliver in a face-to-face setting. This limits the communicator’s ability to read non-verbal cues that signal acceptance, support, behaviour and general attitude (Greenberg *et al.*, 2007). Therefore, it is critical to consider the message, the audience and the potential modes (when, how) when communicating to remote and virtual teams and even more so when dealing with a combination of both face-to-face and remote/virtual teams to ensure the experience felt by the receivers are similar (Greenberg *et al.*, 2007). Electronically mediated communication also impacts trust levels, as these forms of communications are often recorded, shared and stored (such as call recordings and chat histories), which can limit individuals’ willingness and ability to be honest or speak freely (Breuer *et al.*, 2016). It is therefore suggested that leaders encourage social conversation, apart from task/goal related conversation, to build stronger connections and cater for trust building opportunities (Greenberg *et al.*, 2007).

Transparency and accountability. Transparent organisations share information that is accurate, timely and relevant amongst its employees and stakeholders, allowing these individuals to build an understanding, reflect and make informed decisions (Bachmann *et al.*, 2015). This includes transparency around employees’ ethical and unethical behaviour, the associated implications and the perception thereof (Puçetàitè *et al.*, 2015), which goes beyond sharing of information and ensures accountability too (Bachmann *et al.*, 2015). Transparency and accountability extend into teams, and leaders must find ways to be transparent with each other (Ford *et al.*, 2017). Organisations and teams that foster transparency and accountability build cognitive trust (Bachmann *et al.*, 2015) through logic and rational understanding of actions and their associated impact.

Ethical culture. Ethical organisations are transparent, accountable and ensure proper internal communication around breaches

of ethical principles and values (Puçetàitè *et al.*, 2015). When these ethical values are embedded into an organisation’s routines and procedures, this allows the organisation to safeguard against unethical behaviour. This is critical but needs to be coupled with the role modelling of the leadership team to really build and strengthen the ethical culture of an organisation. A strong ethical culture can then serve as a compass for all employees to do the right thing in every circumstance (Bachmann *et al.*, 2015).

During early stages of remote/virtual team and organisation setup, while swift trust is emerging through initial interactions, an organisation’s ethical culture can be enabling by both strengthening the initial swift trust and serve in developing the organisational trust (Puçetàitè *et al.*, 2015). The impact of this enabling function is related to the person/organisation fit and is defined by the comparison between the individuals and organisations ethical values. Previous studies show that higher correlation between these values leads to a higher person/organisation fit and ultimately stronger levels of trust (Puçetàitè *et al.*, 2015).

Foundational components

Organisational structures and strategies can vary over time. An organisation takes its cues from its employees and stakeholders on what is working and what needs adjusting. When organisations consider and respond to these cues, it sends signals to its employees that it cares, and this builds trust amongst employees and the organisation. Given that trust is critical in effective virtual teams, focusing on areas and strategies that consistently builds trust amongst employees and the organisation, is critical for having remote or virtual teams (Ford *et al.*, 2017).

The proposed organisational components are centred around considerations and provisions made or controlled by the organisation and/or the top-level organisational leadership. These components are generally applicable to the whole organisation. They are 1) Systems, policies, and procedures, 2) Technology, and 3) Rewards and incentives. This section will not focus on external components related to trust such as laws, reputation, and community norms (outlined in Bachmann *et al.*, 2015).

Systems, policies and procedures. Organisational systems, policies and procedures help frame how employees can make decisions and take action based on accepted ethical norms and principles. When employee’s role model these norms and principles by following the policies and procedures, they indicate to fellow employees and team members that they can be relied on. This allows others to predict one’s behaviour and action leading to increased levels of trust (Puçetàitè *et al.*, 2015).

There are a number of recognized policies and procedure practices that help build trust in remote and virtual teams over the life cycle of a team. At the start of a team or when a new team member joins, it is very important to have the right training and onboarding systems in place. It is critical to include additional information for virtual team onboarding, such

as working styles, team norms, team member backgrounds, qualifications and task roles that will create a sense of inclusion and belonging for the new team member, which is generally acquired in face-to-face engagements (Ford *et al.*, 2017). Another common strategy for managing trust within virtual organisations is to have clear policies, process, contracts and codes of conduct to make explicit what is acceptable vs unacceptable behaviour (Bachmann *et al.*, 2015). While this is true for face-to-face teams too, these teams tend to build an understanding of acceptable and unacceptable behaviour by watching leaders and others in the organisation and then following suit. This military practice, quoted by Lieutenant General David Lindsay Morrison, which states “The standard you walk past, is the standard you accept”, is often adopted in face-to-face organisational settings. For virtual teams, this is not always possible and therefore it is important for organisations to clearly articulate these behavioural expectations into documents such as a code of conduct, to make it easier for virtual team members to consistently embody them. Organisations should also constrain unacceptable behaviour and incentivise acceptable and trustworthy behaviour in order to develop this understanding and reduce the likelihood of violation (Bachmann *et al.*, 2015). Another well used tool is a contract, which is generally seen as a complementary control mechanism to create trust (Camén *et al.*, 2011). Contracts are used to define the relationship, agree on key principles and accepted practices, outline each parties’ contribution and act as a communication tool to reduce risk and uncertainty (Camén *et al.*, 2011). Effective systems, policies and procedures can also be used as a substitute for direct leadership in teams where physical team presence is dispersed. This can be done in the way of guidelines, documents on “what good looks like” and training guides (Ford *et al.*, 2017).

While systems, policies and procedures are setup to aid in the establishment of trust, they can also hinder trust. It is important for organisations to ensure that their systems, policies and procedures are fit-for-purpose and are not seen as too strict, overly structured or inflexible, which can be demotivating to employees and ultimately impact trust (Bachmann *et al.*, 2015).

Technology. Virtual teams depend on having the appropriate communication technology to connect, support and deliver on their goals individually and as a team. This technology is the main form of connection between these members, and while the quality of the information is more important for building trust, the technology is an important enabler for this. Organisations who recognise and understand this send cues to their employees by investing in and equipping them with quality technology (hardware and software) to enable and enhance their ability to deliver and build trust-based relationships (Ford *et al.*, 2017).

Rewards and incentives. It is very easy for virtual team members to believe that out of sight leads to out of mind in relation to leadership. This can be very challenging and demotivating for remote and virtual team members, where they often feel like their work is not seen or valued. It is important for leaders to communicate to virtual teams that their work is

not only seen but valued and recognised. This is important in maintaining trust between virtual teams and organisational leaders and signals that their careers are protected (Ford *et al.*, 2017).

There is a high dependency and reliance on information sharing within virtual teams and therefore an organisation with virtual teams’ reward structure should focus on team performance and cooperative rewards, which will encourage and foster team trust. Individual competitive reward structures negatively influence individual’s willingness to share information, which affects the way team members perceive each other’s behaviour and their integrity levels (Greenberg *et al.*, 2007).

Individual components

The proposed individual components are centred around considerations that are within an individual, leaders or team’s ability to influence and control. These can vary across an organisation from team to team or within relationships and can be tailored to the type, structure of the team or relationship, the outcomes or goals required, or just general preferences between individuals. The components are 1) Selection of team and the 2) Relationship between line manager and employee.

Selection of team. Leading and managing a team comes with its challenges and complexities, especially with different generations making up the workforce. It is far more challenging leading teams and individuals who are physically based in different offices or locations around the world and who seldom see each other (Ford *et al.*, 2017). These management setups have increased considerably over the past decade with the number of remote and virtual teams being catered for in organisations, and this has created an escalating interest in developing best practices on how to manage such teams.

Literature has shown that managers of such teams have to take steps to create a foundation of trust, prior to team members joining the team (Greenberg *et al.*, 2007) and the team members selected to join need to have a predisposition to trust each other in order to perform collaboratively (Ford *et al.*, 2017). This requires a new set of skills and capabilities from individuals, especially managers, and organisations are having to increasingly factor in training and development for those that require this new skill (Ford *et al.*, 2017). Professor Erin Meyer, writing for Forbes (Carrison, 2017), believes that the type of skills needed by leaders and managers in face-to-face teams differ considerably to those in remote and virtual teams and are sometimes the opposite. Virtual teams require high levels of coordination where a leader should provide clearly defined direction to his/her team and remove all ambiguity from the process (Carrison, 2017). Leaders of virtual teams need to also pay more attention to drawing in the human needs of their team members, as this can easily get lost in an electronically mediated team. They need to find alternate methods to cater for and interpret non-verbal cues and cater for and foster differences that are respected across the team (Ford *et al.*, 2017).

Organisations who recognise and understand the different type of leadership needed for these teams send cues to these teams

that build trust by intentionally investing in the selection and preparation of such leaders (Ford *et al.*, 2017).

Relationship with line manager and employee. People don't leave a company, as the saying goes, they quit their manager. We have all heard this quote many times and it has been proven in multiple employee and market surveys across different regions. An employee's perception of an organisation is determined by the employee's perception of the quality of the manager-employee relationship (Pučėtėtė *et al.*, 2015). The quality of this manager-employee relationship is critical for employee-manager trust (Tuason, 2007) and extends beyond, onto the organisation.

Successful managers of virtual teams build trust by giving advice and guidance instead of dictating and micromanaging. They focus on giving plentiful feedback and concentrate on building confidence amongst their teams (Macaulay & Cook, 2011). Employees judge a manager by the consistency between what he/she says and does. The more consistent this is, the higher the sense of integrity the employee holds for that manager, thus increasing levels of trust (Tuason, 2007). Employee trust is also increased when an employee is given greater control of the outcomes by being included in the decision-making process. This also signals an increase in manager trust as they have shown willingness to share the control and responsibly (Tuason, 2007). A manager's efforts to loosen or share controls is somewhat reflective of their efforts to show and build trust, however, can be challenging when trying promote subordinate cooperation and balance the tension between controls and trust (Long, 2018).

Limitations

The framework is limited to the literature covered, which was based on trust within organisations and virtual/remote teams. Further research into each of the framework components is limited and is required to substantiate or identify any missing components. Lastly, components related to external aspects that contribute to trust, such as laws, reputation and society, have not been factored in. The researcher acknowledges that this will play a role in organisational and team trust but has been excluded from the scope of this research

Conclusions

As more organizations are being forced to consider remote, virtual and flexi working options, it will become important for them to consider the impact this has on their culture and specifically around building trust within the organization and teams. The aim of this research was not to provide an exhaustive list of all categories that would encompass a framework of trust within remote and virtual teams. The researcher acknowledged that there is complexity and overlap that is likely to exist amongst the categories and additional elements might exist. However, the purpose of this research was to develop a simple framework that allows organizations to realise and consider multiple aspects across the elements (foundational, organizational and individual) when building and maintaining trust amongst remote and virtual teams.

Data availability

All data underlying the results are available as part of the article and no additional source data are required.

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Mohammad Alsharo

Information Systems Department, Al Albayt University, Mafrqa, Jordan

This paper discusses not a new but interesting topic, trust in virtual teams. The author introduces an interesting argument and the paper itself is well written and well organized. Up until the methodology section the paper was easy to read and easy to follow. However, I noticed that although the topic dates back to the mid 1990s the author focused on recent research in supporting her argument.

There is a major limitation in this paper which is the methodology which brings questions more than the answers it provides. Consequently, I strongly believe that the methodology should be revised to provide support for the proposed framework. The major weakness of the manuscript is clearly written in the limitations. In the author's words "*The framework is limited to the literature covered*". I do not think the literature is satisfactorily covered to reach the conclusion of the manuscript.

Please pay attention to the following concerns I have in the methodology:

- "This framework is developed from a literature review as well as the author's own experience."

How is the author's experience relevant to the methodology? This is not obvious in the paper and I do not think is relevant in a literature review.

- "The literature review encompassed a search of articles across various databases: "

Can you specify which databases were utilized and what is the literature review process was like? Did the author undergo a systematic review? How many research papers were initially retrieved before deciding that 22 are relevant? What were the search criteria in terms of language, publication years, research method...etc.

I would like to refer the author to a recent article which I believe would benefit this paper in terms of literature review methodology and virtual teams literature:

Alaiad, A., Alnsour, Y., & Alsharo, M. (2019). Virtual teams: Thematic taxonomy, constructs model, and future research directions¹.

From this research paper's abstract: "This paper reports on a systematic examination of the literature on virtual teams through which we provide a thorough review, analysis, and synthesis of

research published in the past 10 years”

- “Due to the recent shifts towards remote work and virtual teams, there is not an exhaustive list of articles available on this topic.”

I do not understand the logic of this sentence, how come that due to recent shift towards remote work leads to no exhaustive list of articles available on this topic?

I think there exist an exhaustive literature on trust in virtual teams context. In fact, throughout the paper I noticed that many important articles relevant to the topic are not cited, for example:

- R.C. Mayer, J.H. Davis, F.D. Schoorman, An integrative model of organizational trust².
- Zaheer, V. Perrone, B. McEvily, Does trust matter? Exploring the effects of inter-organizational and interpersonal trust on performance³.
- K. Dirks, D. Ferrin, The role of trust in organizational settings⁴.
- S. Jarvenpaa, D. Leidner, Communication and Trust in Global Virtual Teams⁵.
- S. Jarvenpaa, T. Shaw, D. Staples, Toward a contextualized theories of trust: the role of trust in global virtual teams⁶.

Taking into consideration that several highly cited published research papers relevant to the theme and goal of this research manuscript are not discussed or cited, I do not think the literature review conducted here is satisfactory to reach with high confidence the conclusion which the author argue. I do not disagree with the argument, but the weakness in the methodology hinders the findings.

- Foundational components title is mentioned twice in the paper. In page 6 where the author actually argues foundational components and in page 7 where I believe it should be organisational not foundational

Overall, I recommend a major revision for the methodology section in order to approve this paper.

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6. Jarvenpaa S, Shaw T, Staples D: Toward Contextualized Theories of Trust: The Role of Trust in Global Virtual Teams. *Information Systems Research*. 2004; **15** (3): 250-267 [Publisher Full Text](#)

Is the work clearly and accurately presented and does it cite the current literature?

Partly

Is the study design appropriate and is the work technically sound?

No

Are sufficient details of methods and analysis provided to allow replication by others?

No

If applicable, is the statistical analysis and its interpretation appropriate?

Not applicable

Are all the source data underlying the results available to ensure full reproducibility?

Partly

Are the conclusions drawn adequately supported by the results?

No

Competing Interests: No competing interests were disclosed.

Reviewer Expertise: Virtual teams, social computing, and health information systems.

I confirm that I have read this submission and believe that I have an appropriate level of expertise to confirm that it is of an acceptable scientific standard, however I have significant reservations, as outlined above.

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