

Traditional vs Virtual teams: A Qualitative Study of Perceived Success

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Abstract

Due to the global pandemic, all businesses have had to adapt their ways of working, which has seen an increase in remote working and therefore virtual teams. A growing body of literature currently exists on what academics believe to be the advantages and disadvantages of both traditional and virtual teams and what makes these teams successful. This study addresses a gap in the literature and aims to understand the different perceptions of virtual and traditional team success held by team members and leaders.

To test the hypothesis that the majority of individuals perceive that traditional teams are more successful than virtual teams, a qualitative approach was adopted and interviews were held. The findings proved the hypothesis to be true; the majority of participants perceived traditional teams to be more successful than virtual teams, mainly due to a lack of knowledge sharing and team interaction caused by virtual working. These findings suggest a potential bias against virtual teams that organisations may have to navigate in order to reap the benefits of this growing form of teamworking.

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Abbreviations

VT – Virtual Teams

TT – Traditional Teams

KS – Knowledge Sharing

TM – Team Members

Introduction

Teams are a fundamental aspect of any organisation and can take a variety of forms including project teams, cross-functional teams or problem-solving teams. More recently, improvements in technology and globalisation have allowed organisations to treat the globe as one large marketplace by allowing easier access to multiple cultures and nations, leading to more virtual/distributed teams. Now these virtual teams are as common as traditional, co-located teams (Greenberg, Hirt & Smit, 2017).

In 2020, businesses worldwide were faced with the challenge of navigating a global pandemic, which forced many to move to remote working in order to reduce the spread of coronavirus. Many surveys taken during the pandemic indicate that employees enjoy working remotely and want to continue to do so at least some of the time. In fact, BBC (2020) found that from 4,700 employees interviewed only 12% want to work full-time in the office, while 72% want a hybrid (office and remote working) way of working, when this pandemic is over. Even Irish Tánaiste Leo Varadkar has acknowledged that working will “never be the same again” post pandemic. Some organisations cannot wait to get their employees back to the office, including Apple whose CEO requested that employees work five days a week in the office. However, many employees have resisted these requests and are demanding more flexible remote working privileges. So virtual working will be an unavoidable phenomenon (Murray, 2021; Robinson 2020; O’Connor, 2021).

Researchers and employees worldwide appear to be polarised regarding whether virtual teams can be as successful as traditional teams. As businesses adapt to virtual working, many have not embraced this new mode - It appears some are not adequately prepared to face the challenges associated with virtuality and embrace its opportunities (Murphy, 2021; Webster & Staples, 2016).

This study will compare traditional teams to virtual teams, discussing the advantages and disadvantages of both types of teams and through qualitative analysis will attempt to understand the perceptions of success of these teams held by team members and team leaders.

Literature Review

Teams

A team is not just any group of individuals working together, the distinguishing factor between teams and other working groups is performance. A team's performance relies on individual and collective efforts, allowing individuals to combine their skills and expertise to achieve a defined goal. Some have coined the term 'team' itself as an abbreviation meaning -Together Everyone Achieves More, which in essence describes a team. (Katzenback and Smith, 1993).

There are various definitions found to describe teams, all of which are similar. It's defined by Katzenback and Smith (1993) as "a small number of people with complementary skills who are committed to a common purpose, set of performance goals and approach for which they hold themselves mutually accountable and produce discrete work products". Additionally, Kozlowski and Iigen, (2006) define teams as "two or more individuals who socially interact (face-to-face or increasingly virtually); possess one or more common goals; are brought together to perform organisationally relevant tasks; exhibit interdependencies with respect to workflow, goals and outcomes have different roles and responsibilities and are together embedded in an encompassing organisational system with boundaries and linkages to the broader system context and task environment".

While a variety of definitions of the term teams have been suggested, the most common properties of teams are as follows:

- 1) Two or more individuals.
- 2) A shared goal.
- 3) Members are independent in the work they complete but work interdependently within the team. Each member has a clear understanding of their roles and responsibilities and they're mutually accountable.
- 4) Complex, dynamic and develop over time and there is synergy within the team.
(Isik et al. 2015; Kambil, 2015; Kozlowski and Iigen, 2006).

Individuals possess a narrow scope of knowledge and skills, but within a team, they can combine their expertise for the best outcome. An example of teams achieving more together is

Ford's 'Team Mustang', when in 1994 they designed and produced the Mustang in 3-years, 1-year faster than their usual cycle, which was a huge cost saving (Scarnati, 2001). In addition to this, Deloitte reports 53% of employees globally believed that there is a positive correlation between teamwork and performance (Volini, Roy and Schwartz, 2019). So, it's claimed teamwork can increase effectiveness within an organisation as individuals work in a structured and collaborative manner.

Traditional Teams

Traditional teams (TT) have conventionally been the most common form of teams. They have also been referred to as co-located/face-to-face teams in literature. Although TT is a commonly used term in literature, it's difficult to define precisely and a generally accepted definition is lacking. TT have been referred to as work groups, where all members are co-located and work in close physical proximity to each other. While they have access to face-to-face and electronic communications, they engage primarily in face-to-face communications more than electronic. The team generally carries out routine tasks but occasionally new projects or tasks are introduced which forces the members to adapt to new ways of working or change their role/responsibilities. TT rely on trust, knowledge, courage, cohesion, commitment, leadership and discipline in order to be high performing. (Webster & Staples, 2016; Krawczyk-Brylka, 2017; Gera, 2013).

Advantages of Traditional Teams

Communication:

Communication is a foundational building block for any team, allowing them to collaborate, make decisions and achieve goals. As TT members are close in proximity, communication between members is assumed to be constant and happening in real-time (Lilian, 2013). A key advantage of TT is their ability to have informal communications - to describe this, the water cooler analogy is used. This analogy represents informal conversations that occur e.g., around the water cooler. This interaction allows members to build informal relationships and increases knowledge transfer which has a positive effect on work relationships (Loureiro and Junio, 2007; Neale and Griffith, 2001). This is backed up by Lillian's (2013) beliefs that face-to-face communication is superior to other forms for several reasons: 1) it's rich in nonverbal and paraverbal cues, 2) it minimises information loss due to simultaneous usage of multiple

communication channels and 3) it maximises feelings of social presence/involvement. The focus of many academics has been on the benefits that face-to-face communication brings, which include aiding with new idea generation and allowing to solve problems faster (Harris, 2015).

Trust

Lillian (2013) distinguishes trust as positive expectations from team members (TM) from delivering or exceeding their goals and expectations. Furthermore, Webster and Wong (2008) state that trust can be built when employees contribute time and effort to shared goals, sharing information and helping other TM. Trust helps TM members to feel safe, encourages questioning, minimises miscommunications, encourages innovation and rapid decision making and can enhance morale as well as productivity (Brownlee, 2019; Loureiro and Junio, 2007). Within TM, members are strongly committed to the team and are more supportive due to their face-to-face interactions. This is due to the fact that these members have more opportunities to bond informally, this togetherness builds camaraderie and this aids in building trust (Gera, 2013). High levels of employee satisfaction can be linked to the fact that TM find it easier to set norms and ways of working when working in close proximity (Webster, 2008). This is disputed by Murphy (2021) - although face-to-face brings people together it stifles creativity/innovation as people are often left distracted.

Although, theorist Charles Green highlights how trust is gained through in-person interactions and developed the trust equation which shows there are four components that affect trust; Credibility, Reliability, Intimacy, while the fourth Self-interest reduce a person's trustworthiness. Trust relationships are needed for success in business and this equation can be used by teams to understand and evaluate trust (Trotter, 2017).

Decision Quality

Dixon (2015) discusses the importance of face-to-face brainstorming sessions to refine/realise ideas, which drives a higher quality end result and allows teams to measure its progress. In person brainstorming activities can increase decision quality and knowledge sharing because it allows all individuals including minority groups the opportunity to express opinions and so yields a greater diversity of perspectives. This face-to-face interaction enables collective learning (McLeod et. al., 1997).

Disadvantages of Traditional Teams

Cost

As TT are limited to one location, this has a negative effective on costs related to facilities, travel and time. For example, there may be a requirement to acquire new infrastructure to house a team in one central location. Cost further increases when considering relocating specialist expertise e.g., relocating one person and/or their family (Loureiro and Junio, 2007). Likewise, Purvanova (2014) state that TT can experience significant travel expenses, when needing to meet customers/clients. With energy and travel costs increasing, bringing teams together without requiring them to travel seems to be the most cost-effective alternative (DePillis and Furumo, 2007).

Diversity

A team that is diverse can foster creativity and a variety of backgrounds can bring new ideas and stimulate thinking. TT are limited to one principal location and so are fishing in a restricted talent pool. Relocation is not attractive to all individuals based in foreign countries and so TT may lose this potential access to key technical knowledge/skills. Even if TT were able to relocate members, in addition to costs, there may also be adaptation difficulties to consider (i.e., cultural differences/language) that may adversely affect the team. So, TT may only have access to the demographic within its organisation or in close proximity of the organisation, resulting in the quantity and quality of knowledge to be limited. It's therefore assumed that TT are more likely to be homogeneous in it's make up (Staples and Zhao, 2006).

Virtual Teams

Many organisations have expanded across borders but also within their home country. This has led to situations where colleagues may not be physically in the same office as each other. The distinguishing factor between virtual teams (VT) and TT is that VT members predominantly use technology to interact. Often VT are formed when organisations want to exploit the benefits of local knowledge and market expertise from employees who are geographically dispersed.

It's important to note that VT can be geographically/organisationally dispersed (Larson & DeChurch, 2020).

There is a plethora of definitions available to describe VT. Throughout literature they're also referred to as distributed/global teams and remote teams. Webster and Staples (2016) describe VT as "a group of individuals who work together in different locations, work at interdependent tasks, share responsibility for outcomes and rely on technology for much of their communication" and highlight that VT can comprise of members who are geographically dispersed and co-located. Gera (2013) define VT as "teams whose members use technology to varying degrees in working across locational, temporal and relational boundaries to accomplish an interdependent task". For the purpose of this paper, the definition of VT given by Zigurs (2003) is the most applicable – "a collection of individuals who are geographically and or organisationally or otherwise dispersed and who collaborate via communication and information technologies in order to accomplish a specific goal." Additionally, Edwards and Wilson (2016) comment that VT members don't necessarily originate from one organisation, they often facilitate collaboration between several organisations for example suppliers/customers.

Webster & Staples (2016), Gera (2003) and Griffith and Neale (2001), all suggest that there are several dimensions of virtuality to consider when discussing VT. These dimensions include physical distance, the level of technological support and the percentage of time teams spend apart and this can vary depending on location and technology use. It has been established that both TT and VT can use technology. So, for the purposes of this paper, it's assumed that the main distinguishing factor between VT & TT is the distance/dispersion of TM between each other.

Advantages of virtual teams

Access to talent

Instead of limiting recruitment opportunities within a small talent pool, VT can exist outside of physical boundaries. Ferrazzi (2012) explains how VT have the opportunity to recruit high quality talent regardless of location. Similarly, Alexander, De Smet and Mysore (2020) agree that VT can mobilise talent and aids in effective collaboration as each member brings different ideas, abilities and experiences which makes the organisations performance culture stronger. Thus, it can be said that organisations can survive the war for talent by having VT. It's

important to note that VT also enable TM spread across the organisation to connect, allowing them to share knowledge and expertise (Edwards and Wilson, 2016).

Costs

O'Toole (2012) found that virtual working can save a company nearly \$2,000 on average per year, per employee. These costs are seen in the form of relocation and travel costs because now employees can work from their own home and eliminate the need to travel between sites, overhead costs because organisations do not have to consider basic facility costs such as light, heating, canteen etc. and a reduction in downtime due to less disruptions faced with daily office routines. It also provides an opportunity to recruit talent at a reduced cost, internationally. Edwards and Wilson (2016) argue that establishing a VT can be a costly process if appropriate infrastructure isn't already set up. But it can be counterargued that in most modern organisations these infrastructures are set up, although sophisticated tools may not be fully exploited. The costs of relocating experts outweigh the costs associated with VT.

Productivity

Ferrazzi (2012) claim VT can reduce the cycle time of projects because members are dispersed across time zones, they can have 24/7 productivity. Some organisations see an increase of 43% in productivity within VT. In fact, Gera (2013) reports that performance in VT are superior to TT. While, Beheshti (2020) notes that it's only with stand-alone tasks, where productivity is seen to increase, whereas there are mixed reports when it comes to collaborative work. But Samuel (2015) says that VT can use the difference in time zones, to their advantage for example with the use of asynchronous technology (e.g., email). An employee may finish work at 5pm and send a question to a colleague in a different time zone and have the answer or next step when they return to work in the morning. This results in a 24/7 work cycle.

In some VT, employees choose their own hours, this self-management, allows members to reduce idle time. O'Toole (2012) also found that VT members took fewer leaves of absence (e.g., sick days, parental leave) due to increased flexibility - this has a positive correlation to productivity. Additionally, Forbes Technology Council (2017) states that those working virtually perform better because they aren't distracted by meetings or interruptions in a shared office, which allows for more focus on their work. There are many arguments that say VT increase productivity, but it can be said that it's mainly due to the ability to bring together diverse skills and knowledge and not be restricted to location, to deliver the best results.

Employee Satisfaction

The flexibility of VT is claimed to provide a better work life balance for employees. Within TT, pulling expertise into a team would have meant that employees may have had to travel to a principal location, instead with VT there is less personal disruption (Edwards & Wilson, 2016). O'Toole (2012) found VT members were happier than those TT members due to this ability to design the way they work around other commitments, and this was seen in the retention rates which were higher with VT members. This is mirrored by Mansfield (2018) who state that 20% of VT members report higher job satisfaction in comparison to TT members. This satisfaction is due to increased flexibility, autonomy and decreased work pressure from leaders. Leadership style in VT tend to be less hierarchical and shared within the team and this particular style can be associated with higher satisfaction.

Diversity

VT tend to comprise of multiple nationalities and ethnicities because there are no geographically boundaries for talent. This cultural diversity can be visible (race,gender) or non-visible (values, cultural norms). There are numerous definitions of cultural diversity, which include Kreitz (2007, p.2) who states that it's "any significant difference that distinguishes one individual from another". This cultural diversity brings many benefits including, innovation, creativity, access to new markets and talented and skilled TM. These TM, who come from a variety of backgrounds allow the team to better understand different markets, customers, customs and laws (Damelang & Haas, 2012 and Newell, 2002).

Disadvantages of virtual teams

Cybersecurity

Forbes Technology Council (2017) reports of how cybersecurity is often overlooked when employees work virtually. This leaves organisations vulnerable to cybercriminals, although the IT advancements make it easier to work from any location worldwide, with today's internet threats, companies must ensure they're protecting confidential and proprietary information.

Team interaction

Distance is one key challenge for VT, this can be physical, time zone, organisational or cultural. Geographic distance and lack of overlapping working hours can cause challenges for teams, as it reduces the level of interaction (Lilian, 2013). The benefits aligned with informal interactions are not possible when working virtually and this can lead to a sense of isolation within the team (Webster and Wong, 2008). Therefore, interactions tend to be more task-focused and less focused on building relationships.

Usually, effective working relationships are built through formal (team building activities) and informal interactions, which aren't as easy to recreate virtually. Alexander et al (2020) notes that the opportunity to strengthen social ties and understanding of the purpose of the team, through ad-hoc meetings and discussions is lost, leading to missed opportunities to collaborate and build trust, which is vital for a successful team. Although asynchronous communication and/or video calls are available discussing sensitive work issues is more efficient face-to-face (Alexander et al. 2020).

Leslie et al (2018) notes that communication is strained in VT because members; try to interpret the context of queries, decide who they should include in exchanges and interpret meanings of silence and cultural nuances. Webster & Staples, (2016) claim that these challenges are minimised over time, with Krawczyk-Brylka (2017) saying the quality of communication depends on the degree of virtuality.

The benefit of allowing TM to work and juggle personal responsibilities can in fact be a challenge to some. Many perceive virtual work to be riddled with challenges because they find it difficult to set up a distraction-free workplace at home and sometimes professional and personal life becomes blurred and so TM feel obligated to work extra hours (Beheshti, 2020). O'Toole (2012) state after an experiment to measure productivity between VT and TT, half of the VT workers opted to return to the office because they indicated that they felt lonely.

Shared Mindset

Another challenge associated with distance/diversity is that individuals may create 'in-groups' consisting of likeminded individuals, which leads to the creation of subgroups and results in ineffective knowledge sharing. The solution is to ensure team leaders foster common identity and understanding. For example: Takeda gathered their Japanese & US colleagues for team

building. Due to different time zones, often meetings are scheduled at unsociable hours; US colleagues attend these meetings at home, while in Japan employees attend from the office. One manager asked why his Japanese colleagues stay in the office to very late hours. They mentioned lack of office space, wanting to keep life/work separate or wanting to run language questions by other co-workers as the primary reasons. The US team were unaware many Japanese missed family time/the last train. This insight was invaluable to the US colleagues who now understood how the Japanese experienced their work (Hackman, 2016). Teams must understand each other and create common understanding, for Takeda this was only done when they met face-to-face.

Diversity

VT are generally diverse on many dimensions including culturally, national, organisational and competences (Webster and Staples, 2016; Krawczyk-Brylka 2017). Lillian (2013) states that diversity affects how members interact with each other and so may complicate communication and other work practices due to beliefs/values or differences in language. Henri Tajfel according to his social identity theory studies how diversity can have a negative impact on teams, as individuals categorize people into groups, which lead to prejudice (Beugelsdijk & Welzel, 2018). So, it's important that team leaders to establish personal relationships, promote a sense of belonging and spend time on team building activities to mitigate the negative effects of diversity because there are many advantages which come along with it (Webster and Staples, 2016).

Leadership skills

Stone (2018) states that leaders need to possess specific skills to be an effective leader - certain skills are more important for VT leaders to have. A 2018 survey across US organisations found only 30% of virtual leaders felt they had the accurate skills to manage their VT. These essential skills include, digital fluency, motivating and engaging employees, facilitating collaboration, building strong relationships and valuing differences. Digital fluency is self-explanatory because as a virtual leader, you may need to leverage the benefits of various tools to collaborate and communicate. The other skills are notably more challenging within a VT due to the dispersion of TM. 66% of respondents believe that the lack of training is a barrier to their leadership and account it to poor performance of their teams. Even when training is given, it

tends to be focused on IT skills. (Grant, et al., 2013) So, it's assumed that a downfall of VT is the lack of training given to leaders.

Successful Teams

A successful team is one that has productive members that communicate, cooperate and innovate in an atmosphere of trust and respect (Bryant, 2021). Scarnati (2001) similarly states that a sign of a successful team is a “co-operative process that allows ordinary people to achieve extraordinary results”. In addition, Magsi and Siddiqi (2016) defines team performance as an objective or subjective judgement of a team regarding how effectively they meet their key objectives.

Patrick Lencioni founded five dysfunctions that every team must overcome in order to be high performing. Lencioni's work has been challenged in recent years by a number of writers who claim this model is based on his own experience rather than being based on qualitative/quantitative analysis. Although there are criticisms of the model, scientific data is not necessary because the model is used simply only as a framework of team building rather than a theory (Cassady, 2013). The 5 dysfunctions are depicted below:



Figure 1 Source: journeytoleadershipblog (2018)

Dysfunction	Explanation
Absence of Trust	The foundation of the pyramid - Fear of being vulnerable prevents the team from building trust, so trust is a crucial building block for teams. It's the responsibility of team leaders to create psychological safety within the team, creating a safe environment for members and therefore fostering trust.
Fear of Conflict	Teams who lack trust do not address tough issues and avoid problems creating artificial harmony within the team, while those with high trust understand appropriate, constructive conflict is for the benefit of the team. Leaders should mine for conflict and address issues as they arise.
Lack of Commitment	Occurs due to a lack of clarity about goals and direction. Team leaders must ensure clarity among members.
Avoidance of Accountability	TM avoid holding others accountable for actions/behaviours. This may create an environment of resentment and poor performance so leaders must confront difficult issues as they arise with members.
Inattention to Results	Individuals prioritising their own goals and putting their ego/development ahead of collective goals

(Joosr, 2015)

Richard Beckhard developed the GRPI model which can also be used as a formula in building high performing teams like Lencioni. This model mirrors all the factors which Lencioni established in his research, proving that these characteristics are essential for successful teams. Beckhard identifies dysfunctions which he describes as: Goals: lack of clarity, deadlines and understanding by members, Roles: lack of roles and responsibilities, while members are concerned only about their own individual goals, Processes: i.e., lack of clear authority/coordination of work and collaboration in dealing with conflict and effective comms and finally Interpersonal relationships i.e., lack of trust and feedback (Iglesias, 2015).

Research has provided a number of attributes that are required for success, these are summarised into four key factors:

- 1) *Psychological Safety (PS)*: an open team environment, where TM feel comfortable enough to speak up without feeling humiliated or punished. Psychology states that individuals are generally reluctant to engage in behaviours where they may be perceived as being incompetent or unaware. Although this is natural human behaviour, it can be detrimental to teams. Higher performing teams, have high levels of PS, allowing members to feel safe to admit mistakes, question ideas and take risks. This leads to high quality decision making, healthy group dynamics, and greater innovation (Dusenberry and Robinson, 2020). Team leaders foster PS by enabling candour, in relation to work content but this concept becomes a challenge within a VT as the line between work and personal life becomes blurry. Recent studies have found that employees face isolation and are less likely to proactively collaborate with their colleagues (Edmondson, and Mortensen, 2021; Allen 2020).
- 2) *Structure and clarity*: TM work better when their roles, responsibilities and the overall team's mission and vision are clear. Leaders who clarify each TM role and links this to the purpose of the team enhances the team's potential. This in turn will support an atmosphere which promotes team cohesion, engagement, trust and satisfaction – all essential for a high performing team (Scarnati, 2001; Tarricone & Luca, 2002; Sime 2019).
- 3) *Interdependence*: Teams must have synergy and by sharing a common goal, the team can achieve what they cannot do as individuals. An example of this is within a team of surgeons – a patient would be in danger if a number of highly skilled surgeons were acting individually during surgery. There are many differences between a surgical team and other teams but the main commonality is achieving goals. Even though TM are responsible for their own individual tasks they sequentially work together. Working together to meet the desired goal and share knowledge/skills to help the group succeed (Scarnati, 2001; Tarricone & Luca, 2002; Sime 2019). Hackman (2016) describes how teams often perceive themselves as smaller subgroups of a larger team, this natural human response categorises people and potentially causes tensions and hinders collaboration. This is seen increasingly in VT as teams separated by distance, different time zones and cultures reinforce dissimilarities.

- 4) *Purpose and meaning*: When TM can see that their work is creating an impact on others or the organisation, it's more satisfying for them resulting in higher performance. KPMG found that employees who understood the purpose of their work were overall more satisfied. In addition, Google found ways of creating meaning such as creating financial security or developing individuals' skills aided in creating a higher purpose and meaning for their employees (Scarnati, 2001; Tarricone & Luca, 2002; Sime 2019).

Teams differ in their tasks for example, some may produce a product while others offer a service. The measurement of success is not universal because success varies across different teams for some it maybe cost savings or meeting deadlines, which can be quantified while for others it maybe participation of members, trust/cohesion, which cannot. Therefore, team success is often based on the perception of individuals. In general, the following is how to measure success of a team:

- 1) *Active knowledge sharing (KS)*: Ketvirtis (2011) defines KS as individuals sharing tacit and explicit knowledge in order to create new knowledge. KS means that members are trusting of one another and share their expertise, inputs and ideas openly. Nguyen & Fry (2021) state the importance of capturing the knowledge that is shared. They say in the modern era knowledge should be captured formally using IT so that others in the organisation can use this knowledge in the future. It's acknowledged that KS is challenging to promote as some employees hide or hoard knowledge, which has a negative influence on results. Webster & Staples (2016) found that VT members are less likely to share knowledge unless it's explicitly shared because they have fewer chances of informal interaction. Overall, KS can be said to produce superior results and create innovative ideas.
- 2) *Employee satisfaction*: Research has shown low satisfaction leads to decreased productivity. Employees are satisfied according to Morgan (2014) when they know they matter, their work output matters, they have good relationships at work, work-life balance, financial stability, job security and chances of progression. Studies have shown that satisfied employees are more productive than unsatisfied employees, leading to higher quality results.
- 3) *Collective Efficacy*: describes "the extent to which individuals believe their team has the capability to produce results/attain goals". Through recognising milestones, momentum can be built towards greater teamwork and so performance is positively correlated with high collective efficacy. It effects the motivation of TM to achieve their

goals because they all have a strong belief in themselves (Meyers and Feltz, 2004; Drikus, 2019).

- 4) Maximising individual potential: All individuals possess different strengths, finding the right skills needed and utilising these strengths leads to meaningful contributions and increases the quality of the output. If individuals' skills are being fully utilised, they're contributing their utmost to meet the goal (Drikus, 2019).
- 5) Achieving objectives: A team must have a shared goal which helps members understand their role and overall vision of the team. Aligning with the team's objectives is a critical success factor. Employees that are not aware of their role and how it effects company success are more likely to be disengaged (American Productivity & Quality Center, 2011; Gallo, 2011). The team's attitude to achieve the agreed goals is key driver in building team cohesion and success (Drikus, 2019). Interestingly Murphy (2021) notes that for many coming to work is perceived as a sign of commitment, while those who are seen to stay late in the office are more potentially more likely to be rewarded/more valued in comparison to their VT colleagues.

Interestingly many academics and organisations appear to have strong perceptions of which team is more successful. For example, Marissa Mayer, Yahoo CEO in 2013 was met with uproar when she banned employees from working from home stating that although employees are productive when on their own, "they're more collaborative and innovative when they're together" (Kleinman, 2013). More recently, McCall (2021) says leaders in Ireland don't trust their teams to work remotely and say it's more difficult to manage VTs. While, Howlett (2021) states that 43% of organisations in the UK will require employees to be present in the office for a minimum number of days even though many have been 100% working from home for nearly two years. So, it appears that leaders have reservations of virtual working.

It comes down to trust - leaders don't trust their teams. They worry their employees are sitting on the beach not actually working, that clients may have a negative perception of the practice and/or fear they won't be able to reach their team in case of urgent business needs (Cohen, 2020; Farrer, 2019). Ultimately leadership needs vary from TT to VT. TT respond positively to authority and hierarchies, whereas VT need flatter organisational structures. Therefore, process facilitators are more likely to be effective VT leaders rather than authority figures (Kirkman & Mathieu, 2005; Cohen, 2020; Farrer, 2019; Stratone & Vatamanescu, 2019).

Culture & Teams

For a team to be successful, we have established the importance of purpose and so it's vital that members are clear about the mission (why do we exist?), values (what do we care about?), vision (where are we going?) and strategy (how will we get there?) of the team. Additionally, the culture of the team needs to fit in with these four components for a high performing team. Culture can be defined in many ways and at multiple levels including national and organisational. Hofstede defines culture as "the collective programming of the mind which distinguishes members of one human group to another" (Kramer, Weisfel & Thakkar, 2007). Every organisation/team creates its own culture, a distinct identity over time, it can be defined as "the way of running affairs in the organisation for the employees, it's a shared perception of the organisation which is observed in all members" it distinguishes one organisation from another (Ghorbanhosseini, 2013). Contrastingly, Murphy (2021) says organisational culture isn't that important, it's often weak and constantly changing, with little evidence of what a 'good' culture looks like.

Edward Hall in 1976, compared organisational culture to an iceberg – the visible part is likened to the organisation's symbols, slogans, dress code and vision, while most of the iceberg is hidden underwater which is compared to values/unwritten rules. A strong defined culture positively contributes to motivation and performance. It allows employees to understand that they're working towards a common goal and drive cohesion within. Leaders have a key role to define the team culture, by clarifying why the team exist, building in elements that support the teams' values and steering the team to better work together (Matsudaira, 2019).

Out of a leader's control is national culture. One reason for forming VT is to access the global marketplace but it's important to note that today with increased immigration, there are many different cultures living even in one nation so VT may face as many varying cultures as TT (Kramer, Weisfel & Thakkar, 2007). Characteristics that vary for different nationalities, such as beliefs/customs are referred to as national culture, this influences a person's behaviour, expectations and values. Hofstede's cultural framework identifies several dimensions which can be used to define national culture. These include:

<u>Dimension</u>	<u>Explanation</u>	<u>Example</u>
Individualism vs collectivism (IVC)	This is the degree in which people in a country prefer to act as individual's vs members of teams.	China – Collectivist Germany – Individualistic
Power Distance (PD)	The acceptance of inequality in a nation. Individuals from low power distance cultures have low reliance on hierarchical power structures while high power distance cultures are more accepting of hierarchical order.	UK – Low Power Distance Mexico – High Power Distance
Masculinity vs Femininity	Masculine cultures place an emphasis on factors such as decisiveness and competition, while feminine cultures emphasis cooperation and modesty.	Japan – Masculine Culture Canada – Feminine Culture
Uncertainty Avoidance	Tolerance for ambiguity. Countries with high uncertainty avoidance have rigid beliefs and behaviours, while lower uncertainty avoidance are more relaxed attitudes	Finland – High uncertainty avoidance Denmark – Low uncertainty avoidance
Long-term vs Short-term orientation	This dimension describes how much a society keeps links to it's past. Countries with long term orientation prefer time-honoured traditions while short term orientation encourage societal change to prepare for the future.	US - Short Term Korea – Long Term

(Staples & Zhao, 2006; Morrison-Smith & Ruiz, 2020)

While acknowledging the importance of all dimensions, IVC and PD index is the most relevant to team performance. Research has confirmed that those from a collectivist culture are more willing to help others and be more cooperative vs individualistic cultures. While those in high PD nations may need a team leader to dictate their work load vs low PD nation (Staples & Zhao, 2006; Morrison-Smith & Ruiz, 2020). Minkov & Kaasa (2020) argue that Hofstede's research assumes a nation is homogenous and ignores the fact some nations have different cultures within e.g., China where there are different dialects/customs/beliefs. So, it cannot be

assumed that all Chinese people hold the same beliefs. Another common criticism is that his cultural beliefs are constant while others theorists have acknowledged that aspects such as globalisation and the use of virtual tools have changed beliefs and reshaped values. In defence of Hofstede's work the model is more generally used for general comparisons of different cultures, rather than in depth analysis (Sterbenz, 2014; Ambrosino, 2014).

Contemporary examples of successful teams

It has been established previously in this section, how to distinguish successful teams from unsuccessful teams. The modern business world is full of examples highlighting success through both VT and TT. Toyota and Twitter are two examples;

Toyota

The majority of Toyota's teams by the nature of their business tend to be traditional, whether it's within their manufacturing facilities or in dealerships, TM tend to be co-located. Toyota is one of the world's greatest motor companies mainly because of their renowned Toyota Production System, which has allowed them to make low-cost automobiles and develop new products quickly. Toyota's automotive competitors and other businesses outside their industry such as hospitals for example, have adopted the companies underlying principles in a bid to become more efficient like them (Toyota Way, 2001; Takeuchi, H. et al., 2008).

Toyota place great emphasis on their people, saying teamwork is key to their success. Taiichi Ohno, one of the co-developers of the 'Toyota way' believed that you have to continuously coach and develop people to drive efficiencies, this has been at the forefront of Toyotas activities to present day. It's implied that if you have not seen it yourself first-hand then your knowledge isn't as reliable (Solomon, 2020).

Toyota's main belief is that to be successful, information from the source has to be available to everyone and so face-to-face interaction is key. From this belief Gemba walks have been developed. This process is described as driving efficiencies, the concept believes that all leaders need to step away from their desks, spend time where the work is happening and listening to their employees. This will lead to trust building and a deeper understanding of the process, as it allows for management to really understand what is happening on the front line. Managers that don't are separated from reality, in fact Toyota believe that managing from a distance "carries huge negatives for leaders, as it could hide the reality of the situation". Toyota expect all managers to spend time doing Gemba walks (Takeuchi, H. et al., 2008).

This belief that leaders should be in the presence of their teams observing what they do, learning, coaching and developing has driven the company to be a world leader in manufacturing, increasing market shares and sales. The Toyota team exemplify high collective efficacy, teamwork is their driving factor for their success and lastly Toyota attempt to maximise individuals' abilities and skills with constant coaching and learning and development activities (Takeuchi, H. et al., 2008, James & Jones, 2014).

Twitter

Twitter is an American multinational corporation offering a global platform for people to “consume, create, distribute and discover content and has democratized content creation and distribution”, headquartered in San Francisco. The company was launched in 2006 and by 2012 had more than 100 million users. By 2013 it was one of the most visited sites worldwide and more recently in 2020 Twitter saw more users on the platform than ever before. The company's CEO Jack Dorsey in 2018 decided to allow their 5,200 employees decide where they want to work as an experiment, anywhere in the world. This wasn't easy to set up, the company experimented with testing virtual meetings, understanding virtual meeting etiquette etc. Prior to the pandemic only 3% of employees choose to work remotely but coronavirus has catapulted the remainder of the team into a future state of working, allowing employees more autonomy and freedom, while the company can benefit from diverse and affordable employees (Dwoskin, 2020).

The work from anywhere policy is driven from the top down, for example Mike Montano (Engineering VP) oversees a team of 2,000 employees while working from home. Since 2020, supports for working from home, including new ideas for team interaction have been rolled out. Employees have reported that they feel more productive at home and management agree. Attrition rates have fallen double digits since 2017 as a result. Now, at least 70% of employees want to continue to work from home for a minimum of three days a week and employee satisfaction rates have increased according to their internal surveys (Dwoskin, 2020).

Research Question

As the pandemic continues to evolve, there's uncertainty about long/short-term disruptions to businesses but what we do know is that virtual working has proven to be successful in a lot of cases. It has driven a shift in behaviours, about how organisations work as teams (Castrillon, 2020).

Researchers have long proclaimed the benefits of VT, which have been identified in Chapter 1 but many are polarised when it comes to debating whether VT or TT are more successful. Lund et al. (2021) believes that although some tasks can be completed remotely, results are more effective when face-to-face e.g., negotiations, brainstorming/providing feedback. High-profile companies such as Twitter and Facebook have publicly announced that employees could work remotely indefinitely. Regardless of how employers feel about VT, they're going to be an unavoidable presence in future workplaces (Castrillon, 2020).

There's a plethora of research on the advantages and disadvantages of VT and TT, as well as measuring success of teams, but there appears to be few studies carried out to understand the perception of team members as to which type of team is more successful. Therefore, this study is critical to add to the existing research in the space of VT vs TT.

The primary aim of this study is to explore the perception of success of VT and TT teams. Based on this purpose and a review of the existing literature in Chapter 1, the following sub-questions will be explored, also:

- What are the characteristics of successful teams in the view of participants?
- Do team leaders believe that VT are generally more challenging than TT?
- Why do participants believe a certain type of team is more successful than the other?

Based on the existing literature, several hypotheses were developed:

- TT are perceived to be more successful than VT, due to the lack of in-person interaction.
- Team leaders believe that VT leadership is more difficult due to reduced interactions with their team and challenges faced by diversity.
- Employee satisfaction levels are higher with VT participants

Research Methodology

The process of undertaking research involves a number of steps as illustrated by Quinlan (2011) in Fig 3. The process begins with the formulation of an idea and examining published research in the specific area of study before gathering data. The term research is defined by Quinlan (2011) as the “application of social science research methods in the process of examining business phenomena. It includes idea and theory development, problem definition, searching for and collecting information, analysing data and communication the findings and their implications” while Saunders et al. (2011) defines research simply as the “process that is undertaken in a systematic way with a clear purpose, to find things out”.

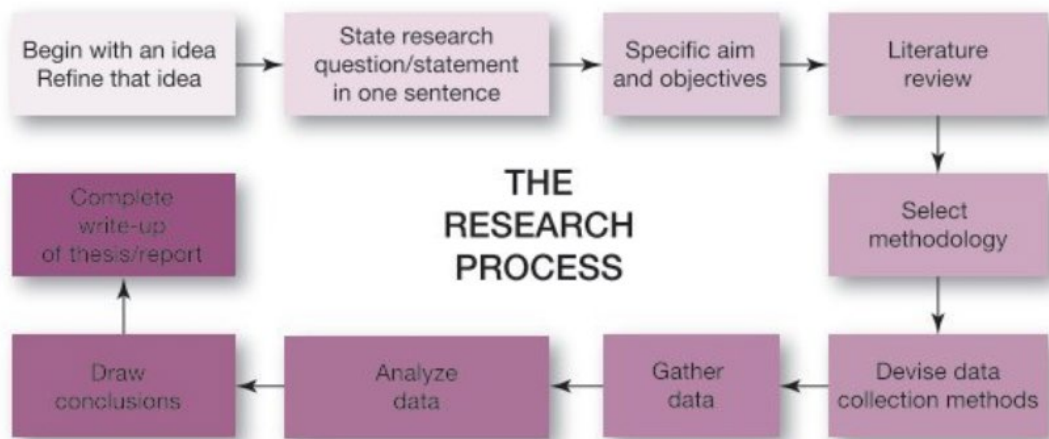


Fig 3. Source: Quinlan 2011, p.95

For this study, basic business research will be carried out as opposed to applied business research – applied business research is conducted to address specific business decisions for a particular organisation while basic business research is conducted to expand knowledge in a particular area (Quinlan et al. 2011).

Research Philosophy

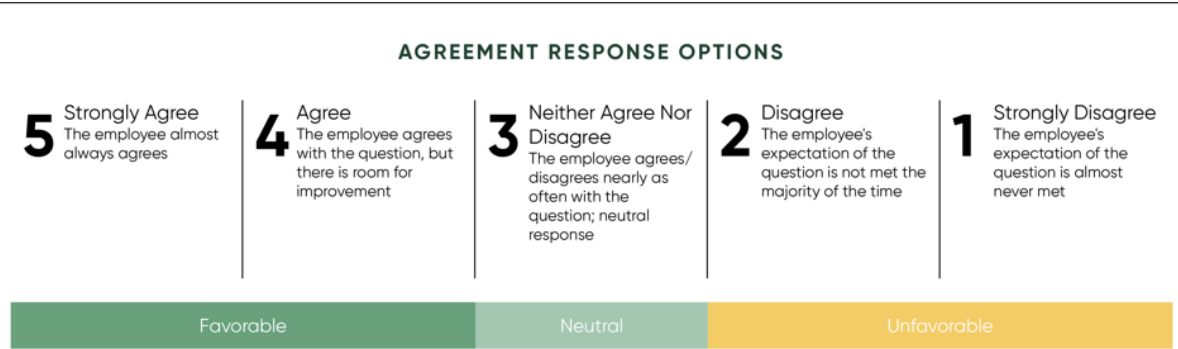
Saunders et al. (2011) explains how researchers at every stage of their research will make a number of assumptions, which include ontological – assumptions about the realities encountered while conducting research, epistemological – assumptions about human knowledge and axiological – assumptions shaped by the researchers own values/beliefs. These assumptions effect how the researcher interprets findings and designs the research questions.

An interpretivist philosophical position attempts to understand the experience of individuals. The underlying belief of this method is that individuals are unique in their interpretations of situations and understand the same 'objective reality' in different ways. Interpretivists focus on research that helps to gain in-depth insight and an understanding of why individuals believe what they do. Whereas, positivists take a more scientific and structured approach rather than the interaction between individuals. They believe individuals actions are defined by social norms and so positivists tend to collect quantitative data. An interpretivist approach will be followed for this study because it will allow the researcher to complete in-depth questioning in order to fully understand the different perceptions of team members and leaders, while acknowledging the complexity of individuals unique values and beliefs (Quinlan et al., 2011; Saunders et al. 2011).

Research Approach

The primary research approach will consist of semi-structured interview questions. Which will allow the researcher to capture individuals own perceptions. The interview questions will be pre-prepared and interviewees will be encouraged to speak at length after each question. An inductive approach is most appropriate in this study because it will allow the researcher to understand why individuals have a particular view and allow for broad themes to be formulated. The researcher began with a research question which guided the collection of empirical data, which was then used to generate hypotheses. Whereas deductive reasoning usually begins with a theory or idea which then guides the data collected (Quinlan et al., 2011; Saunders et al. 2011).

Organisation X in which the researcher is currently employed conducts an annual organisational-wide survey which asks employees to comment and rate a number of key aspects such as collaboration, engagement and work/life balance on a scale of 1 to 5 (a description of the scale can be seen in Figure 3. The survey secondary data originally collected for the purpose of driving improvements within Organisation X will be referred to in the findings of this research. The researcher will compare scores from January 2020 vs January 2021 to see if there is a trend that can be observed when a large number of Organisation X's population began to work from home due to the global pandemic. This data will be anonymous and the organisation will not be identifiable.



Research Design

As alluded to earlier, this research will adopt a qualitative research design, which is most commonly associated with the interpretive philosophy. Qualitative study focuses on “individual human experiences, understandings and interpretations” and focuses on understanding inner meanings or new insights (Quinlan et al. 2011). Fusch et al. (2018) explains how qualitative research is undertaken when the researcher seeks to “define and interpret unclear phenomena through nonnumerical methods of measurement that focus on meaning and insight”. This approach is less structured than quantitative research where the use of questionnaires and structured response formats are common. Quantitative research focuses on numerical data and its relationship between variables. Both have advantages and disadvantages as described by Quinlan et al. (2011) in Fig 4

Qualitative research	Research aspect	Quantitative research
Discover ideas, used in exploratory research with general research questions	Common purpose	Test hypotheses or specific research questions
Observe and interpret	Approach	Measure and test
Unstructured, free-form	Data collection approach	Structured response categories provided
Researcher is intimately involved, findings are said to be subjective	Researcher independence	Researcher uninvolved observer, results/findings are said to be objective
Small samples – often in natural settings	Samples	Large samples to produce generalizable results (results that apply to other situations)
Exploratory research designs	Most often used	Descriptive and causal research designs

Fig 4 Source: Quinlan et al., (2011)

While it’s acknowledged that the use of both qualitative and quantitative research methods would be beneficial for this study, due to time constraints, the use of qualitative research has been chosen as the preferred option because it will allow the researcher to interpret information gathered during interviews from a specific group of participants and gives the researcher license to be unstructured and ask probing questions. This study will be an exploratory, cross-

sectional study which will allow the researcher to ask both open ended and close ended questions and gain a deeper understanding of participants responses at a particular time. The researcher will use probes to ensure that the needed information is received. This wouldn't be possible in quantitative research because it's more structured and less exploratory (Faush et al. 2011).

Reliability and validity

“Reliability refers to replication and consistency” – a study would be reliable if another researcher was able to replicate the same study and receive the same results. While validity refers to the “appropriateness of the measures used, accuracy of the analysis of the results and generalisability of the findings”. Some threats to reliability include participant and researcher error/bias. While threats to validity include past or recent events, pretesting the interview questionnaire before the recorded interview takes place, maturation and ambiguity (Quinlan et al., 2011; Saunders et al. 2011).

Confounding variables to be aware of when reviewing the survey is that a number of organisational factors may have influenced participants answers, these include structural reorganisation in 2020, change of senior leadership in 2019 and/or the announcement of headcount reductions in 2021.

Ethics

The following ethical principles have been adhered to throughout this study;

- Integrity, fairness and open-mindedness of the researcher
- Respect for others
- Avoidance of harm
- Privacy
- Voluntary nature of participation and right to withdraw
- Informed consent of participants
- Confidentiality of data

No identifiable factors of the organisation and/or participants were asked during interview and if participants disclosed this information during interview, it was not included in this paper. All data obtained was purely for the purpose of this study. These points were reiterated to participants via a consent form pre-interview (Quinlan et al., 2011; Saunders et al. 2011).

Research Sample

Quinlan et al (2011) describes that the selection of an appropriate sample population can be beneficial in understanding insights of the whole population. The researcher has chosen a purposive sampling technique to select participants that will be best to answer the research question posed. Purposive sampling is not considered to be a representation of the larger population but can provide rich information in comparison to probability sampling techniques.

For the purpose of this study, three VT leaders, three VT members, three TT leaders and three TT members will be interviewed. Purposive sampling in this case, has allowed the researcher to select equal numbers of each participant category, which would not have been guaranteed with probability sampling techniques. This sample allowed the researcher to receive proportionate feedback from each group, while taking into consideration time constraints.

Details of participants

Name	Years within the team
VT Leader 1	2 years and 10 months
VT Leader 2	2 years
VT Leader 3	1 year and 10 months
TT Leader 1	4 years
TT Leader 2	5 months
TT Leader 3	3 years
VT Member 1	15 months
VT Member 2	4 months
VT Member 3	10 months
TT Member 1	20 years
TT Member 2	6 months
TT Member 3	3 years and 6 months

The Interview

The researcher developed two interview questionnaires (appendix A) in order to probe team leaders more around their thoughts on leadership. The interviews were semi-structured and questions were generated from the five identified measures of success within literature. When designing the questionnaire caution was given to ensure questions were worded to avoid any ambiguity and to minimise misinterpretations. The researcher also took into account that the flow of questioning will be reliant on the general flow of conversation and modified questions as appropriate to suit the conversation.

The interviews took place face-to-face and via Microsoft Teams, depending on the locality of the interviewees. All interviews were audio recorded with prior consent from the participants, although the researcher acknowledges that audio recordings can sometimes inhibit some interviewees responses and in turn reduce reliability. Audio recordings were needed to ensure accuracy for the researcher when analysing the data gathered. Participants were made aware of their right to withdraw at any time from the study and reassured their anonymity would be kept at all times.

Data Analysis

The researcher used thematic analysis to interpret the data. This method has been chosen as it was a structured and orderly way to analyse the data gathered. It provided more flexibility to interpret data in comparison to other methods such as grounded theory. The main aim of thematic analysis is to identify themes within the data gathered, which is most applicable to the research question (Braun & Clarke, 2021).

Braun & Clarke developed a framework for thematic analysis which was used for this study. Adams et al (2014) also says that qualitative data should be analysed following this similar manner. The below steps were taken to analysis the data gathered through qualitative research:

- 1) The researcher became familiar with the data gathered by reading and re-reading the transcripts from interviews. This allowed the researcher to identify initial themes emerging from interviews.
- 2) Following this the researcher used coding to categorise data with similar meaning. Initial codes were generated to identify key codes or 'buzz words' that emerged.
- 3) Once codes were identified, the researcher was able to identify common themes that emerged across all interviews.
- 4) The themes identified were reviewed making sure that all relevant information was included and not overlooked. While also ensuring to check if the themes identified added value to the research question.
- 5) Finally, the researcher discussed the findings. This involved synthesising the information gathered and comparing/contrasting each finding with literature which was previously reviewed.

(Maguire & Delahunt, 2017).

Limitations

There were limitations to this study, one of which is that TT have been around for centuries, whereas VT have only been established in recent decades and widely utilised in the last year. It can be assumed that the many challenges faced by TT have been overcome, whereas VT are immature by comparison. This means that if TT are found to be more successful, that is not to say that VT cannot achieve the same success through years of adaptation. Another limitation was due to time constraints, which resulted in a small sample size. If there was more time the researcher would have engaged a larger sample size and also undertaken quantitative research. Lastly, qualitative research in general, is not without limitations such as researcher bias and accuracy (Quinlan et al., 2011; Saunders et al. 2011). But Faush et al (2018) state how researcher bias is present intentionally or unintentionally in all studies as the researcher plays a vital role in the data collection phase. So, it's imperative that any interpretations are true representations of the participants of this study and not of the researcher. These limitations listed, do not undermine the findings of this study.

Findings and Analysis

Successful Teams

The findings within literature stated a number of key factors of success. During interviews various viewpoints were observed of what a participants believed to be factors of successful teams but the most common characteristics mentioned by more than one participant was good communication, trust, and good personal relationships.

One that achieves it's objectives.... they have to collaborate effectively and communicate effectively...information has to be shared well.... have good personal relationships. (VT member one)

The team members feel like the person on my left has my back or the person on the right has my back are they really doing things for the interests of me and the team. (TT leader two)

Leslie et al. (2018) describes that communication can be strained within VT, so it's interesting that 4/6 VT participants specifically said communication was a key characteristic of a successful team, in comparison to only 2/6 TT participants. The varying answers given by participants highlights the subjective nature of the topic.

Knowledge sharing

All participants felt that knowledge is shared well within their teams. They explained that they share knowledge in a purposeful way, through daily meetings while three participants acknowledged the use of shared files as a way of sharing knowledge.

If it was in relation to a specific project or someone had completed a specific task, they would write up a little description of what the task was. If it was something technical and another member of the team needed to do that in the future, they would go to the specific area of the one drive for those details. (VT member three)

VT members differed to TT members in what they felt were the barriers to knowledge sharing. All TT members highlighted that lack of motivation from members to share knowledge was the main barrier.

Some team members wouldn't be as forthcoming with the knowledge (TT Member three)

This challenge discovered was backed up by TT leader one, who mentions that roles within the organisation can sometimes be competitive and so TM may not be willing to share knowledge

easily. Additionally, TT leader two mentions two challenges faced within the team - trust and dispersion of TM. Within literature, trust is established as a foundation of any good functioning team as identified by Patrick Lencioni. As well as noting that informal interactions are key in building informal relationships and increasing knowledge transfer.

If you've a low trust team then people don't share what they're doing openly or they feel that knowledge is power. They might think they can use this knowledge against someone or use it to big myself up and so you are getting away from the team then. Some of my team work from home one day a week and I find that can be a bit of a barrier, it doesn't make it impossible but it makes it difficult to contact people, I find. Some of the best knowledge sharing occurs from the sporadic knowledge sharing. (TT leader two)

VT leader three also reiterated that the lack of casual knowledge sharing is the main challenge.

I was in work last Friday and a team member from another team was here and she was on the phone talking about a project that we are all working on, saying she had a problem. I overheard and I was like hold on we are already working on that and when she hung up, I let her know and that casual knowledge sharing happened because we were in the office together and I overheard. Whereas in the virtual world she would never have known that. (VT leader three)

Contrastingly, TT Leader one states that even though knowledge is shared well within the team through casual knowledge sharing because the team are co-located, often valuable information isn't captured formally, to revisit.

It can be too informal, so things aren't written down or communicated to a wider group and can get a bit lost. (TT leader three)

Although shared files are specifically mentioned by 3/12 participants all of whom are virtual, 2/3 VT leaders and 1 VT member commented that the main barrier to knowledge sharing can sometimes be to the lack of access to IT systems.

Some barriers are if a certain team member is not part of 'organisation x' then they wouldn't have access to the one drive as we would have. (VT member three)

To summarise, the key sub themes causing barriers to knowledge sharing identified within TT are, lack of motivation of members, hybrid (virtual and co-located) members and casual knowledge sharing. While within VT barriers are seen due to lack of casual knowledge sharing and lack of IT access. So, casual knowledge sharing has been identified as a common challenge

within TT and VT, within VT it's the lack of casual knowledge sharing while within TT it's that sometimes knowledge can be too informal. This is consistent with Alexander et al. (2020) and Webster & Staples (2016) who highlight the benefits of 'water-cooler' chats. This also suggests that there may not be high levels of trust within these teams as common challenges associated with lack of trust which were highlighted.

But this study has not confirmed previous research stated by Lillian (2013) who says that face-to-face communication is superior due to increased knowledge sharing and Hackman (2016) who found that knowledge sharing is ineffective in VT. This has been found to not be the case because regardless of challenges faced by both VT and TT, as a whole, all participants felt that knowledge was shared well with their teams.

Employee Satisfaction

Team members and leaders were asked a number of questions to understand their level of satisfaction within their teams. Morgan (2014) described employees are satisfied when they know they matter, their work output matters, they have good relationships, work/life balance, job security and chances for progression. This formed the questions which was asked to participants.

It has been found that all participants felt that their work was meaningful because they enjoyed the work or project they were doing

I like the project I am working on at the moment because it's important for our customers safety and getting the product on market (VT member two)

It's very rewarding and I feel like you've accomplished something at the end of the day. (TT leader one)

Interestingly VT leader one, TT leader two and TT leader three acknowledge that due to the nature of their role they often spend extra hours working but all acknowledged that it's a personal choice and they each have the overall responsibility to manage their work/life balance. But overall, all participants, except VT team member one, believe they have a good work/life balance.

The workload has spiralled out of control in the last 12 months and I just think it hasn't been resourced adequately and this has led to increased complexity (VT member one)

At home you stay longer working because you justify it because you don't have a commute (VT leader one)

Findings have shown that within 'organisation x' there may be added pressure for leaders and in particular one VT member in terms of their workload. It should also be noted that within the organisational x survey they statement 'my workload is reasonable' scored 69% favourable score in 2020 which dropped to 63% in 2021, suggesting that employees are feeling somewhat more under pressure than in 2020.

Research has stated that working within a VT provides more flexibility and so increases an employee's work/life balance, this was proven to not be the case for VT member one or VT leader one but for all other VT participants, this was proven to be true.

I may be in a meeting and it's 5 o'clock with someone based in a different time zone. If I was in the office, I would be saying ok when I finish this call which may last another hour, I have the hassle of traveling home. Where if I was working from home that day, it's no problem if the meeting goes on another hour because I'm already at home (VT member three)

This finding aligns with Leslie et al (2016) who states that logistics across geographical zones is a core challenge faced by VT. VT members are generally more flexible with their schedules due to this reason.

All leaders believed that their teams felt a sense of satisfaction and if their teams were not satisfied this is something that would be seen.

If the team is unhappy with their work and dissatisfied, it's easier to judge that. I look for dissatisfaction than if they're actively enjoying it. (VT leader two)

2/6 team leaders believed that changes within the organisation and external environment (COVID-19, Brexit) are factors that affect employee satisfaction. While VT leader three said the main challenge to employee satisfaction within the team is due to lack of socialisation due to virtual working, which is in fact a key advantage described within literature for TT.

In addition to the above, chances for progression adds to employee satisfaction levels. VT member one and TT member two were the only ones that felt there was no progression opportunities within the team, due to the nature of the role/internal organisational factors, while all other participants felt there was.

Overall, the evidence from this study suggests that both TT and VT participants enjoy a good work/life balance. This contradicts the literature which states that VT provide a better work/life balance for employees.

Collective Efficacy

The interviews found that all participants believed that their teams have been successful to date.

Everyone is personable, people aren't afraid to ask for help and they receive help if they need it. There is good interaction with each other, people talk about their personal lives (TT member one)

I believe we have been successful because our team have had numerous large projects to complete and we have completed them all within time and with monetary constraints. So, they have been successful, and we have been moved on to the next projects. (VT member three)

As mentioned previously, all TT members mention that the lack of motivation to share knowledge was a challenge within the team, which would suggest low collective efficacy because tasks could not be interdependent in this case.

When participants were asked if they prefer to work on their own or within a team, five of those who are currently part of VT said they prefer teamwork while only two in a TT said they 100% prefer teamwork. The others in the TT preferred a mixture of both, except for TT member one who prefers to work on their own.

Ultimately, I know when I am working on my own, I am in control of what I am doing and I am responsible for how quick or slow I am doing it. I dislike having to do something where I am relying on other people to give me information to do it because you will be chasing people for the information and that drives me mad. (TT member one)

Working in a team tends to mean that you are delegated too and I prefer just being in charge and in control of what I am doing myself. (TT member two)

We have our own individual task working in a team but in a team all the members maybe have more experience than you've or expertise in a specific area. So being in a team you can ask for knowledge from them or advice from them and because you are part of the team you will get that freely and quickly from them. (VT member three)

When looking at 'organisation x's survey it's noted that the statement 'in my team we help and support each other' was 90% favourable in 2020 and this dropped slightly to 87% in 2021. It could be interpreted that this small drop was due TM working more individually than collectively, which may be attributed to the move to VT.

Additionally, the findings show that all but one TT member is made aware of the team reaching milestones, daily/weekly. The findings show that all participants strongly believe their teams are successful, but it has been established that the majority of TT and VT participants prefer to work collectively. Literature has suggested that in order for a team to be successful, there needs to be high collective efficacy. Collective efficacy can be seen to be reflected in individuals' perceptions of their teams' capabilities. To assess collective efficacy members are assessed on their perception of how their team is performing and the interdependence of tasks (Meyers and Feltz, 2004). Given that these findings are based on a limited number of responses/questions, this is a general interpretation of the data gathered.

Team objectives

Gallo (2011) says that for employees to feel that their work is meaningful they must understand the overall vision of the team. From the qualitative research all participants confirmed that they understood the objectives for their team. Despite this general acceptance, some participants (2/3 VT members and 2/3 TT members) mentioned they were only aware of the "high level" goals.

I have a general idea (VT member two)

I suppose very generally I would. I wouldn't know the nitty gritty of it. (TT member one)

When team leaders were asked how they knew their team understood the vision of the team an array of answers was received. All believed their team understood the overall goals and this was done by reinforcing them regularly. TT leader two was the only leader who said the team were involved in designing the goals.

Yes, they absolutely do know the goals because they created them. (TT leader two)

TT leader three commented that it was harder to motivate the team because the goals of the team remain the same each year - This was reiterated by TT member three.

It's difficult to fully engage them because we are almost regurgitating the same thing very year. It's something I struggle with and maybe we don't always give them the time. (TT leader three)

In literature it's noted that the failure of employees in understanding the overall objectives can be detrimental to a team and each employee should know how their role fits in with the overall team and company strategy for success. When TM were asked if they understood their role in achieving objectives, 100% said yes, but TT member one did hesitate and said "*I do to an extent.*"

When looking at 'Organisation X' annual survey, the statement "In my experience, roles and responsibilities are clear in 'organisation x'" receives a 54% favourable score in 2020, which increased to 55% in 2021 and the statement "I can see a clear link between my work and Organisation X global goals" received 69% favourable score in 2020 and 70% in 2021. These favourable scores suggest that across 'organisation x' there are a large group of employees who are unclear about their responsibilities as well as how their role links into the wider organisational goals. Which as suggested by Gallo (2011) means employees may not actually find their jobs meaningful and therefore may impact the quality of the end goal.

Lastly but importantly, all participants were asked if they felt the team was successful this year to which 100% said yes because they have met the objectives set or are on track to meeting them. Within literature a key measure of success is when a team has a shared goal, this helps members understand their role and overall vision of the team. These goals help to motivate and engage TM. Once these objectives are met it's assumed the team is successful. The findings show that all TM are clear of the role they play within the team, although it's unclear to what extent they fully understand them. There is no consistent approach as to how team leaders reinforce the objectives. This suggests that there is inconsistency across the teams in 'organisation x' in terms of teams fully understanding their objectives. The analysis did not reveal any significant differences between virtual or traditional teams, as to which is more effective in achieving objectives.

Individual's skills and abilities

TM highlighted a number of skills and abilities that could be utilised better within their teams. Within the VT, members mentioned communication, being personable, self-motivation and increased knowledge sharing. Within TT, members mentioned communication, being personable and knowledge sharing. So, the sub themes of communication, being personable and knowledge sharing was identified with self-motivation being the only identified skill not being utilised with VT. In addition, it should be noted that 4/6 TM which includes all VT members believe that TM need to be more flexible to give each other help when needed. Generally speaking, all participants felt that the skills and abilities of TM were not being utilised fully.

Virtual working is okay if it's an emergency or a quick meeting but it's not the same as being with a team and getting to know each other and knowing their moods of when to ask for something or when to leave them alone. (TT member one)

Communication a big one, personable, easy to approach and easy to talk to. (VT member one)

Team leaders all felt that there may be skills their teams are not utilising fully. They all predominately spoke about the importance of having technical ability but also mentioned similarly to TM that communication, knowledge sharing and interpersonal skills are essential for the effective functioning of the team.

I don't think our skills are ever utilised to the full of their ability and that's because of environmental factors and you've restrictions based on the environment you work in and the team you work in etc. I think sometimes people are not fulfilling their full potential because not everyone has found their ideal role and they're probably restricted. For example, I have people in my team who are hugely creative but we don't need that and we are not a marketing firm for example. We need a certain level of creativity and then we need a certain level of technical expertise and the ability to be relentless and tenacious with tasks. So, I don't think the team are fully utilising but I would say they're above average. (TT leader two)

A noteworthy point was made by **VT leader three** who mentioned, “*Good communication skills especially because you can't have that informal chat and all is very formal. Some people can't have small talk but I think you need to have small talk before you get into the detail it builds by a relationship.*”

These comments suggest that team leaders focus on the technical ability based on the role, while they acknowledge that their teams may not be utilising their skills to the fullest. Literature has suggested that all individuals possess different skills and abilities and if they're utilised fully this leads to meaningful contributions and increases the quality of output. It has been found that there is no overwhelming evidence that proves TM skills and abilities are being utilised more within TT vs VT. It was anticipated that VTs would have more access knowledge/skills as highlighted within the literature. In fact, these findings contrast with previous statements in the literature because both team members and leaders feel there are multiple skills and abilities that can be utilised better within both teams.

Do team leaders believe that VT leadership is more challenging than TT?

Surprisingly one VT and all TT leaders agreed with this statement and so interestingly only 2/3 VT leaders, who had previous experience working in TT, didn't believe it was more difficult. The leaders who agreed with the statement detailed that it would be more challenging difficult due challenges with performance management, building relationships and not being able to track their team's productivity. These challenges correlate with the findings in the literature review, which states that team interaction is reduced when working virtually.

When asked if the team leaders received any form of training to support their leadership, only one VT leader had received formal training relating to leading a VT and all TT leaders had received training to support their TT leadership.

I don't think it would be hugely beneficial. (VT leader Three)

The trainer emphasised aligning the expectations upfront and your ways of working. (VT leader One)

It's interesting that there is an inconsistency in the training across 'organisation x'. It could be perceived that if all VT leaders received some form of training it would assist them in leading their team and minimise challenges highlighted by them - as noted in literature certain skills are more important more leading virtually. But it's surprising that both VT leaders who have not received any form of VT leadership training do not find VT leadership challenging – this contradicts Stone's (2018) findings.

Success within VT vs TT

Out of all 12 participants interviewed 10 had experience working within a VT and TT, so the researcher was able to ask them directly which team they felt was more successful and why. The most striking result to emerge from the data collected was that 9 out of the 10 participants said they felt the TT was more successful in comparison to the VT.

I would say the TT marginally, there isn't a big difference. But you do lose 5% or less efficiency and information sharing going virtual. We lose that ability to overhear information and take action, virtually you are relying on everyone being proactive about information sharing. The non-routine ad-hoc is the hardest virtually because it's harder to understand who needs to be aware of it and so virtually that understanding of who needs to be involved needs to be there. Otherwise, you could miss out key stakeholders and the project could fall down. Whereas working traditional you can overhear information and chance of communication increases.
(VT member one)

In my project now if we were all co-located it would be easier and more successful. **(VT leader one)**

The current virtual project team I am on has suffered greatly because it has been completely virtual. **(TT member one)**

I would think the team who were physically together. I remember in the remote team; you don't really get to know people. I think it's the informal stuff that make a team. There is very little to know informal wise in a virtual team. There are no water cooler chats or bumping into each other in the corridor. You spend your life on one call to the next it's deenergising. **(TT leader two)**

Interestingly TT leader three did not have any experience working in a VT but perceived that TT would be more successful.

I imagine it would be harder because the guys in the project were able to stay late and give me dig out because they know you, so that personal interaction and having fun and craic you became more of a team and much more likely to help each other. **(TT Leader three)**

VT member three was the only participant who believed that VT are more successful compared to a TT - *The virtual team was more successful because you are pulling strengths from people that may be in different locations or areas.* This is one of the key benefits of forming a VT as

established in literature. VT are usually formed when organisations want to exploit the benefits of local knowledge and market expertise from employees who are geographically dispersed (Larson & DeChurch, 2020).

This study has shown that the majority of participants view TT to be more successful in comparison to VT. The preliminary questions have highlighted that the main challenges of success are due to reduced casual knowledge sharing and less team interaction within VT. So, participants believe within a TT there is increased knowledge sharing and chances for social interaction. These benefit's substantiate previous findings in the literature on trust.

Future Research

This research has raised a question about the relationship between hybrid TM and performance management challenges.

Remote leaders are at a disadvantage because not everyone wants to go back to the office but could be a certain demographic that goes back and maybe it will be the ones in the offices whose leaders can see them work that get promoted rather than those working behind the scenes at home, that's going to be a challenge. (VT leader one)

They're looking at a 60/40 split working from home within the function and I don't know about you but I'm like how am I going to handle the scheduling because I want the team to be sitting together at least one day. It gets confusing to pick days then, it's going to be extra work for leaders to manage those days when people are home and or on site. (VT leader three)

Although, this was not explored within this research, this could be an area for future investigation.

Discussion

Organisations in all industries across the globe are constantly trying to improve their ways of working, to remain competitive and keep pace with technology. This has brought about virtual ways of working and by extension, virtual teams (Edwards & Wilson, 2006). Publicly there has been a strong perception that TT are more successful in comparison to VT (Kleinman, 2013; McCall, 2021). The objective of this study was to examine the perceived success within VT and TT teams, along with this purpose, the author set out to find:

- What are the characteristics of successful teams in the view of participants?
- Do team leaders believe that VT are generally more challenging than TT?
- Why do participants believe a certain type of team is more successful than the other?

Through the use of qualitative research and secondary data surveys, the researcher was able to understand whether team members perceived VT or TT to be more successful than the other. The characteristics of success were identified within the literature review and explored during the interviews. This chapter will now discuss the findings which are common to VT and TT, unique within each team and any other themes which were identified within qualitative research.

Knowledge sharing

A strong relationship between effective knowledge sharing and team success has been reported in the literature (Drikus,2019). All participants felt that knowledge is shared well within their teams. This finding contradicts existing studies by Webster & Staples (2016), which would suggest that VT see decreased levels of knowledge sharing due to reduced team interaction. Challenges were highlighted by all participants which suggest that there may not be high levels of trust within the teams.

Sub-themes within VT:

Interestingly when probed, lack of casual knowledge sharing was identified as the main barrier for effective sharing. Specifically, VT leaders believe that because their teams weren't co-located, they missed these informal conversations. This finding correlates with McLeod, et. al (1997) who states that in-person interactions increase knowledge sharing and also Webster & Staples (2016) who found that VT members have fewer opportunities for informal interaction. These results show that reduced informal interaction is a barrier to knowledge

sharing. It would suggest that within VT, knowledge has to be shared proactively in order for it to be effective.

Sub-themes within TT:

Within TT, the main barrier to knowledge sharing was motivation/unwillingness to share knowledge. This challenge wasn't identified within the literature review but this lack of motivation may be attributed to the competitive nature of some roles or due to the cultural backgrounds of individuals, as identified by Hofstede. Hofstede's theory identified that some cultures may proactively share knowledge in comparison to others – an example of Japan vs Canada was identified within the literature review.

Themes not explored within the literature review

The barrier of motivation was not explored in detail within the literature review but arose during the qualitative research. Davidaviciene et al. (2020) explores this barrier to knowledge and uses the social identity theory to explain this behaviour. It's found that there are two types of motivation: intrinsic and extrinsic. Individuals may restrict sharing knowledge due to interpersonal differences and competition within sub-groups within teams or it finds that if individuals understand their reciprocal benefit's, they will be more likely to get involved in sharing. This finding contributes to a clearer understanding of this barrier to knowledge sharing within VT. VT and TT leaders need to find a way to motivate members to actively knowledge share because it cannot be forced or controlled – Hofstede has highlighted that some cultures may process information differently or cultures high in uncertainty avoidance may not be as comfortable with IT, which can prohibit knowledge sharing among diverse teams. Further research is needed to establish the underlying causes of how motivation impacts knowledge sharing within VTs. Overall, these findings contribute to the literature in knowledge sharing because both VT and TT participants believe knowledge is shared well and the main barriers identified align with issues of trust within the teams within existing research.

Employee satisfaction

As mentioned in the literature review, the recent pandemic has affected employees all over the globe and has led to organisational changes and impacted employees' personal lives (Bhatti, Ahmad et. al. 2021). Within 'organisation x' it has triggered restructuring and personnel cuts. These internal changes and external environment changes is assumed to have impacted internal employee satisfaction. Prior studies have noted that employees are satisfied when they know

they matter, their work output matters, they have good relationships, work/life balance, job security and chances for progression.

Common to both teams, all participants believed that their work was meaningful because they understood how their role impacted customers/organisation or they enjoyed what they were doing. Although literature hasn't identified whether VT or TT members are more likely to find their roles meaningful, the key distinguishing factor of satisfaction within literature, between VT and TT has been identified as increased levels of flexibility.

Sub-themes unique within VT:

The findings show that for the majority of VT participants there is an increased level of flexibility and work/life balance which adds to employee satisfaction levels. It has been identified in the literature that VT are set up as an answer to increasing demands for flexibility, so this finding confirms this statement. Additionally, this correlates with the existing research of O'Toole (2012). Interestingly, all VT members felt that their TM could be more flexible, which suggests that although TM may enjoy work/life flexibility themselves, they're less likely to help their TM. This was not identified as a potential disadvantage within literature, so it's interesting that it has emerged as a sub-theme. It suggests that there may be lower levels of trust in this case, because as identified effective collaboration is higher when trust is.

Even though VT members commented on enjoying flexible working hours, in contrast to literature, some VT participants acknowledged that the virtual work led to extra hours spent working and an increased work load that team leaders were not aware of. Whereas within the literature an advantage of VT was identified as 'productivity' due to the flexibility of virtual working and use of asynchronous technology and 'employee satisfaction' due to decreased work pressures from team leaders. These findings contribute to a clearer understanding of the disadvantages of VT, that team leaders have less oversight of the workload of their teams.

Sub-themes unique within TT:

All TT participants confirmed that they were satisfied within their roles, this finding may be linked to Webster (2008) who states that TT have high levels of satisfaction because they find it easier to set norms and ways of working, although this contradicts the findings of Mansfield (2018) who say VT members report higher levels of satisfaction and the hypothesis made earlier.

Themes not explored within the literature review

This study has provided insight into a relationship between virtual working and how VT leaders have less oversight into the work of their TM and how this may impact performance management activities/promotional decisions. It was discussed in the literature review that there is a belief that being physically present in the office you are more likely to be valued/rewarded (Murphy, 2021) and this finding has shown that this may be a factor as to why some feel TT are more successful.

These results state that TT and VT enjoy the same level of satisfaction which does not support the previous research of Webster (2008) who states TT have increased satisfaction due to more in-person interaction and Dwoskin (2020) and O'Toole (2012) who believe VT enjoy higher levels of satisfaction due to increased flexibility and thus proves one of hypotheses incorrect. But it should be noted that VT members have more challenges to be overcome for satisfaction levels.

Collective Efficacy

Very little was found in the literature in relation to collective efficacy but Drikus (2019) notes that as teams recognise small wins, this momentum helps teams towards greater teamwork and cooperation. Both VT and TT acknowledge that they regularly acknowledge their teams' milestones, which correlates with Drikus' study. In addition to this, all participants believes that their team is successful to date and it has been noted that all understand how their role impacts their wider organisation, which has a positive correlation to collective efficacy.

Sub-themes unique within VT:

Findings show that the majority of VT participants prefer to work as an individual on their own rather than as a team. Drikus' (2019) highlights that a measure of collective efficacy is a team with interdependent tasks. Although it's assumed that VT tasks may be interdependent the majority still prefer to work on their own which suggests a low level of collective efficacy.

Sub-themes unique within TT:

Findings show the majority of TT participants prefer to work as a team for a number of reasons but mainly due to the social interaction. This is interpreted that TT have higher levels of collective efficacy when compared to VT.

Themes not explored within the literature review

There was limited research surrounding how to measure collective efficacy and so it's noted that this data must be interpreted with caution. Nevertheless, Hofstede's study states that some cultures tend to be more individualistic than collectivist but it's unclear if this correlates with his studies because nationality was not disclosed by participants.

It's acknowledged that the researcher failed to directly question participants perceptions of their teams' capabilities and so these findings are disappointing but nevertheless from the interviews, all participants outlined that their teams have been successful to date by achieving or overachieving their set targets and acknowledge that they regularly check milestones. So, it has been established that all participants hold a collective belief in the effectiveness of their teams.

Team Objectives

Aligning with the teams' objectives is a critical factor for success as outlined within literature. Alignment drives cohesion and commitment and therefore the chance of success increases. To foster alignment, a team should be aware of each other's roles and responsibilities, have good communication and understand how their role impacts the organisation and team goal. Findings show that all participants are aligned with their teams' objectives. (Drikus, 2019; American Productivity & Quality Center, 2011)

However, the organisational survey identified low scores when employees are asked if they understand roles and responsibilities and also how their work links with the organisation. If members were clear of team goals, it would be assumed that this would receive a higher score. This finding suggests that across the organisation there is disparity of how much roles and responsibilities are understood. This potential lack of understanding may be detrimental to team success, as outlined in literature.

Lastly but importantly, all participants were asked if they felt the team was successful this year to which 100% said yes because they have met the objectives set or are on track to meeting them. Within literature a key measure of success is when a team has a shared goal, this helps members understand their role and overall vision of the team. These goals help to motivate and engage TM. Once these objectives are met it's assumed the team is successful.

Sub-themes unique within VT:

The majority of TM are only aware of high-level goals and didn't understand the detail of the teams' goals. Interestingly all VT leaders claim that their teams understand the vision of the team and it's reinforced regularly. This would suggest that there may be some lack of communication among leaders and members if some members only know 'high-level' goals. This finding aligns with Dixion (2015) who states that TT have better face-to-face brainstorming sessions.

Sub-themes unique within TT:

Findings have shown that within the TT, there were goals that remained the same each year and so TT members are more aware of the detail of these goals in comparison to the VT members being only aware of 'high-level' goals. It should be acknowledged that these TT members are all in specific roles aligned with manufacturing objectives, so they may be more defined goals than that of VT. Regardless, these findings align with the established literature that TT members have more opportunity to be on the same page about a task (Champion, 2015).

It was defined within literature that a key measure of success is when a team has a shared goal, this helps members understand their role and overall vision of the team. These goals help to motivate and engage TM. Once these objectives are met it's assumed the team is successful. The findings show that all TM are clear of the role they play within the team, although it's unclear to what extent the TT members fully understand them. There is no consistent approach as to how team leaders reinforce the objectives. This suggests that there is inconsistency across the teams in 'organisation x' in terms of TM fully understanding their objectives. The analysis did not reveal any significant differences between virtual or TT, as to which is more effective in achieving objectives.

Individual's skills and abilities

Within both TT and VT individuals identified that skills such as communication, being personable and active knowledge sharing could be utilised more efficiently. While team leaders also acknowledged that these skills were not being fully utilised in their teams. This finding suggests that individuals' skills and abilities are not being utilised fully, which literature states needs to be the case in order to have a successful team. It's also noteworthy that some individuals claim that knowledge is shared well but also highlight that this is a skill that needs to be improved within their teams. This suggests that further research should be carried out in order to understand the level of knowledge sharing within the teams.

Sub-themes unique within VT:

In addition to the above skills, VT members highlighted the importance of self-motivation and how this was essential for the team. This skill was highlighted by leaders also because as they're not co-located, they rely on individuals to work on their own and proactively share any issues or comments they may have. This finding adds to better understanding the literature, which stated that for VT, process facilitators are more effective leaders than authoritative and VT leaders should possess more of a coaching approach than command/control style.

Sub-themes unique within TT:

TT members specifically highlighted that understanding each other's skills and abilities was easier when co-located, which is an interesting observation which was not explored within the literature review and so adds to the learning of this topic.

Themes not explored within the literature review

The essential skills needed for individuals of a successful team were not identified within the literature, although the findings highlight that communication, interpersonal skills and technical ability is perceived to be the most essential traits needed for successful teams.

The study aimed to understand whether individuals' skills and abilities are being fully utilised within their teams, because this was identified as a measure of success. The findings show that although within both VT and TT, there are skills that could be utilised better, there were additionally more skills that need to be utilised within VT in comparison to TT. It should be noted that literature has suggested that VT comprise of more diverse skills and so it could be assumed that due to a variety of skills, it's harder for team leaders to utilise and as noted by one TT leader individual's skills cannot 100% be utilised. Overall, this study has found that TT members skills are more effectively utilised in comparison to VT members, this adds to the work of Staples & Zhao (2006), even though TT may have less access to diverse skills they're believed to be utilised better than VT.

Do team leaders believe that VT leadership is more challenging than TT?

Webster & Staples, (2016), Krawczyk-Brylka, (2017) and Gera, (2013) all claim that for a team to be successful there needs to be strong leadership. Literature pointed to the fact that leaders believe that leadership within VT is more difficult and this could be attributed to lack of sufficient training.

Sub-themes unique within VT:

Contrary to expectations, only one VT leader believed that virtual leadership is more challenging. The reason why they preferred a TT was because when the team is co-located, it's easier to understand personalities and address different viewpoints in a conflict situation. Interestingly though this VT leader was the only leader that had received specific virtual leadership training. This finding contradicts existing literature which suggest that VT leaders find leadership is more challenging.

Sub-themes unique within TT:

As anticipated, all TT leaders believed that virtual leadership is more challenging. The reasons why they believe it's more challenging was due to lack of informal interaction and difficulties in monitoring employees' workload/performance. They believe that collaboration was much easier when co-located. These perceptions align with the literature, specifically Champion (2015) who states that VT leaders need more heightened people skills to make a VT successful.

It's interesting to note that all these leaders received some training to support TT leadership but no training was received for VT leadership – which could suggest that if support was given for VT leadership, they may have felt that VT leadership was less challenging.

Themes not explored within the literature review

It was established within the literature that the majority of leaders find VT leadership more difficult (Gera, 2013). 5/6 team leaders have experience working within a VT and out of this group two VT leaders disagreed with this statement. Those who agreed stated this was mainly due to difficulties in performance management, building relationships and not being able to track teams' outputs. An argument as to why some leaders believe performance management harder in VT is strongly put by Murphy (2021) who says that management isn't really that different – you rollout the goals and ensure the team achieves these goals. But interestingly there's a correlation which appears to show that those who believe VT leadership is harder have received no VT training, so it can be assumed that these leaders may not be equipped with

the knowledge/tools as to how to overcome challenges within VTs. This identifies a gap for 'organisation x' to address in order to potentially reap the benefits of VT, as identified by Grant, et al. (2013).

Interestingly diversity was identified within literature as a prominent challenge for VT, but there was no mention of diversity challenges by any participant. In fact, the salient challenge to be overcome identified by leaders was lack of face-to-face interaction. So, the hypothesis was proven to be partially correct, leaders believe that VT leadership is more challenging due to lack of interaction within their teams but haven't identified diversity as a challenge.

Success within VT vs TT

Participants identified good communication, trust and personal relationships as characteristics of successful teams which adds to the existing literature on successful teams that mention psychological safety, structure and clarity, interdependence and purpose and meaning as characteristics of success.

Sub-themes unique within VT:

The results indicate that the majority of VT participants believe TT are more successful due to increased knowledge sharing and informal interactions. This corroborates with the findings of Neely (2015) who says that even though solutions for real-time communication are available for VT, delayed forms of communication (e-mail) are relied on and so this becomes a challenge for VT to knowledge share and Beheshti (2020) and O'Toole (2012) who found in their studies that most virtual workers want to return to the office due lack of social interaction.

Sub-themes unique within TT:

The findings also show that TT participants believe TT are more successful due to knowledge sharing, increased opportunities for collaboration and informal interactions. These findings add to the existing thoughts of success within VT vs TT. This data can be used to better understand the strong perceptions of those organisations such as Yahoo or Google that require their employees to work some of their time in the office.

The evidence gathered from this study suggests that the majority of participants perceive that TT tend to be more successful than VT, due to lack of informal knowledge sharing and team interaction, which is often interlinked with strong levels of trust (Kleinman, 2013; McCall, 2021). As Gera (2013) mentioned due to the opportunities to build camaraderie, trust is stronger within TT. The researcher speculates that lack of training of managers plays a role in this

perception. Virtual leadership training has been identified as being essential and lack of this training has been identified as attributing to poor performance within literature. Hence, it could be hypothesised that if the leaders of the VT received virtual leadership training, then more participants would see little gap in success levels between virtual and traditional.

Summary

In conclusion, proving the hypothesis, research has found that TT are perceived to be more successful than VT. Many of the challenges faced by VT and TT are similar but it's apparent that TT are perceived to be more successful because of their face-to-face interactions which lead to knowledge sharing. It was previously found within literature that team interaction and communication tend to be more difficult within VT, due to fewer channels available for informal interaction. They're often reliant on IT to communicate/share and members tend to feel more isolated from the team, unless their colleagues proactively share status updates/knowledge. This lack of proactive communication can impact levels of trust and then adversely affect performance. Therefore, this finding suggests that it's harder to recreate the value gained from face-to-face interactions which have been found to be essential for a successful team. This is noted as the primary reason for this perception.

Recommendations

Notably all participants were members of 'organisation x' and based in the Dublin office. Literature has shown that each organisation and nationality have its own culture and so the researcher would suggest including participants from different industries/nationalities to understand if there's a variation in this perception.

Conclusion

As rapid advancements and general use of technology increases, VT are increasingly more prevalent in organisations and so understanding if TM have a perception that one is more successful than the other is a critical question, as well as understanding if team leaders believe it to be more challenging than traditional team leadership. Established research on VT vs TT suggest that both can be as equally successful but VT face more challenges that need to be overcome in order to reap the benefits. The findings of this research clearly show that TT are perceived to be more successful in comparison to VT. This viewpoint adds to the existing literature, including that of Stratone & Vatamanescu (2019), Webster & Staples (2016) & Leslie et al. (2016). But raises a question of how organisations should manage this perception to reap the benefits of VT.

A number of characteristics were identified as measures of team success, this includes active knowledge sharing, employee satisfaction, collective efficacy, maximising individuals' skills and abilities and achieving the teams' objectives. The findings show that these factors are key for both VT and TT. The study limited itself to these five key characteristics of success but there are other factors which were not investigated including the area of diversity or levels of psychological safety within teams which both add to success levels.

In particular, this study has established that the main obstacles of VTs is the lack of team interaction and casual knowledge sharing, which is linked with trust. Hence suggesting that trust is harder to build with VT. There were no significant differences regarding employee satisfaction, team objectives and collective efficacy within TT and VT. It can be said that in general, employees are not comfortable with full-time virtual working, even those who have had previous experience working within VT and T, due to decreased levels of interaction. So, helping VT optimise for success requires a deep understanding of the challenges that they uniquely face and offering solutions as to how they could be overcome and therefore, this could be an area of future research.

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Appendix A

Team members

Are you currently part of a virtual or co-located team?

How long have you worked with your current team?

In your opinion what are the characteristics of a successful team?

Knowledge sharing

- Do you believe knowledge is shared well between each team member?
- Are there are barriers to this knowledge sharing – what are they?

Employee satisfaction

- Do you find your work meaningful?
- Would you say you have a good work/life balance currently?
- Do you feel there is scope for personal professional growth in the team?
- Do you have any suggestions of how individuals can add value to team performance levels?

Collective Efficacy & Achieving objectives

- Do you know what the objectives for the team are this year?
- Do you know your role in achieving these goals?
- Are you made aware of milestones being achieved every 1 / 2 month regarding the above goals?
- Do you prefer to work as an individual on your own or within a team?
- What specific behaviours has your team leader demonstrated that particularly help with the functioning of your team?

Maximising individuals' skills

- In your view, what are the individual skills and abilities that can be utilised better to achieve maximum team performance?

Closing Qs

- Do you believe your team have been successful to date? Why?
- Have you worked in a VT or TT? (Depending on what type of team they say they work in now)
- Which team, in your opinion was more successful

Team Leaders

Are you currently part of a virtual or co-located team?

How long have you worked in your current team?

In your opinion what is a successful team?

Knowledge sharing

- Do you believe knowledge is shared well between each team member?
- Are there barriers to this knowledge sharing – what are they?

Employee satisfaction

- Do you find your work meaningful?
- Would you say you have a good work/life balance currently?
- Do you feel there is scope for professional growth for your team members?
- Do you believe the work that team members are currently carrying out, gives them a sense of purpose/satisfaction – how do you judge this?
- What do you think are the biggest challenges that effect employee satisfaction within your team?

Collective Efficacy & Achieving objectives

- Do your team members know what the team goals and how to get there? – How do you know that they fully understand the vision of the team?
- Do you believe the team is on track to meeting the yearly target?
- Do you prefer to work as an individual on your own or within a team?

Maximising individuals' skills

- In your view, what are the individual skills and abilities that can be utilised better to achieve maximum team performance?
- If you were recruiting a new VT/TT member what characteristics, would you look for?

Closing Qs

- Do you believe your team have been successful to date? Why?
- Do you agree in the statement leadership in VT is more challenging? If so why?
- Have you received any form of training to support virtual leadership or traditional leadership?
- Have you worked in a VT/TT? (Depending on what type of team they say they work in now)
- Which team, in your opinion was more successful?