

Determining Change Agent using Social Network Analysis

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Abstract

The studies on organizational change had been one of the prominent studies in history. For an organization to stay relevant, they had to “change” to fit with the demands and supply in the market. However, despite knowing that change is compulsory for an organization to evolve, the successful rate of organizational change does not improve significantly. Organizations do not really understand what major factors contribute to their change failure and repetitive mistakes were done continuously. Finding a change agent can be a major help to focus on executing change. However, the classical method of selecting change agent is based on hierarchical level, seniority, and random selection. Therefore, this paper suggests an empirical method to select change agent through the method of Social Network Analysis (SNA). This paper proposes the concept of centrality as an important value to determine the right change agent to drive a successful change.

Keywords: Organizational change, change agent, Social Network Analysis (SNA), demand, supply

Introduction

Change is a state of improvement and growth in every organization. To remain relevant, sustainable, and competitive in the industry, an organization had to change a very dynamic of its business nature (Odor, 2018). “Change” is in need to improve organizational performance, increase profits, and for long-term sustainability. Theoretically, organizational change is the movement of an organization from its current state, towards some desired state in the future to increase its effectiveness (Lunenburg, 2010). Normally change happens when an organization decides to change its structure, strategies, culture, policies, technology, or even its core values to stay competitive.

Real-life stories of successful change implementation were validated by multiple million companies such as Lego, Netflix, and Pizza Hut who had survived from nearly bankrupt companies to today’s products that are dear to customers’ interests. According to information from Profit& (2019), these companies started by producing physical products delivered to their physical customers. LEGO, for example, a near-loss company, had restructured its product from physical toys to bridging the physical and virtual augmented reality (AR). This approach saved Lego from going down to bankruptcy in 2004, towards becoming a revival company that managed to keep up with the requirements of its target audience today. Netflix, in the beginning, provided a monthly subscription to customers and posted a DVD to their doors. However, since everything started to go on digital, Netflix also changed its business towards online streaming in 2007, which helped them to grow their subscribers from 23 million in 2011 to more than 137 million in 2018. Similarly, Domino Pizza had shifted to digital transformation to support the change. A new custom delivery vehicle with a heating oven was introduced, dubbed the DXP, which acted as a form of advertisement despite only 150 being on the road at the time. Customers can also make an order through text messages, Alexa, Google Home, Twitter, Facebook, and smart TVs. As changes are a continuous momentum, now, Dominos worked hand in hand with Ford to make a robot delivery or even used a drone as an alternative for Pizza delivery. However, these real-life cases of successful change only cover about 30% of the change initiatives. Despite acknowledging the need for change in the organization, repetitive implementation of change failure constantly occurred in

history. It was supported by past literatures that suggested approximately 37% of organizational change illustrated success (McKinsey, 2018).

In the previous research, many studies on organizational change concentrate only on a macro level, instead of a micro-level (Elias, 2007). The strategy, planning, and execution of change are more focused on the organization level instead of studying the psychological path of the individual level. Most importantly, the organization is a form of human being, considering the individual needs is crucial. If the organization wants to successfully implement the change, the strategy of change must also consider the employee's psychological process. If employees are motivated, this will help to the success of organizational change efforts which include job commitment, job satisfaction, (Szamosi & Duxbury, 2002), job motivation and willingness to take change initiative.

The process of organizational change, communication, and learning can be steered with the help of change agent. The role of a change agent is important as they help disseminate information, provide support, and collect valuable feedback from employee (Zbieg, Zak, & Batorski, 2016). Therefore, it is crucial to identify the right employees to hold the responsibility as change agent. When the right agents are identified, they can be great catalysts toward successful change (Beckhard & Harris, 1987) (Burt, The Social Capital of Opinion Leaders, 1999) (Gronn, 2002) (Tichy, Tushman, & Fombrun, 1979) (Valente & Pumpuang, 2007).

As organizational change revolved around the whole concept of structural change in the organization, the change agent on the other side, plays a role to drive cultural change and provide psychological support to the employees. A common step for the organization to delegate change is by doing it according to bureaucracy level, from top management to downlines. It is often the case that no matter how hard they attempt to execute change, the entire process is stuck somewhere (Pureta, 2015). The wrong selection of change agent is the key to most cases of failure in the change initiative. Therefore, the author suggests social network analysis (SNA) as a systematic way to select a high influential person to execute change.

Organization Change

Organizational change is a process of adoption new ideas, concepts, or behaviour by people in an organization (Burnes, 2017). It is a form of coordinated people working together to accomplish some desired end state or goal. It happens in some designed activity, spontaneous improvisation, or anything that lies upon coordinated effort. An organization without a human is like an empty shell as the organization moves to align with the improvement of its people. Most organizational change in the world focuses on performance, elimination of organizational crisis, and withstanding competition (Watkins, 2021), but this whole process of organizational change must be supported by its employees.

The Importance of Change Agent. Change agents are people who have skills to stimulate, facilitate and coordinate the change effort. (Lunenburg, 2010). These people have versatility of characters with broad skillset to influence the people in their network. Most of the research often classifies change agent as leaders, managers, or whoever is deemed to acquire skills to drive change. According to Caldwell (2003), Change agent is someone that empowers others, build teams, learn from others, is adaptable and flexible, open to new ideas, manage resistance, resolve conflict, has great networking, and solves problems.

Based on Kurt Lewin's Theory (1951), Levasseur (2001) describes three stages of change. There are unfreeze, change, and refreeze. During **unfreeze**, communication to recognize the need for change, and employees' support/involvement are of importance. In the **change** stage, employees' support or involvement, teamwork, active communication, and visionary leadership enable the change process. **Freezing** the change requires support during implementation and the commitment of the employees.

Change agent plays a vital role in unfreezing process. The general idea of unfreezing phase is to create awareness on how the current level of acceptability is preventing the organization from growing. This involves the effort to change the old behaviour, mindset, processes, and organizational structure, and mostly revolves around the human factor in the organization. Cultural change is an effort of connecting a set of goals, roles, processes, values, communication, attitudes, and assumptions (Denning, 2011) of each employee. Researchers and practitioners perceived that organization with well-founded culture can contribute to organizational performance along with well strategy and planning (Ibidunni & Agboola, 2013).

Selection Of Change Agent. According to Zbieg, Zak, and Batorski (2016), there are two types of classical change agent selections: i) Top-down management, and ii) random selection. Basically, both approaches to change agent selections were using formal structure. The leaders in organization area always perceived to be someone capable to implement change. In most research, change agent are frequently classified as "change leaders" or "change managers," where they are chosen based on hierarchical level. However, the focus in this paper, is for change agent to obtain information, based on formal and informal structure. Also, they are capable to be within the networks to receive or transmit the information. They are also capable to influence people in the organization to adopt changes with different degrees of divergence from the institutional status quo (Brass, 1984; Brass & Burkhardt, 1993; Gargiulo, 1993; Ibarra, 1993; Krackhardt, 1990) and policy systems (Laumann, Knoke, & Kim, 1985; Stevenson & Greenberg, 2000).

Social Network Analysis (SNA). This paper proposes adopting social or social network analysis (SNA) as a method to identify change agent. This concept relates of how people connect to each other, communicate, share knowledge, exchange information, and what values they can absorb from that social interaction. It also integrates sociology, economics, civic involvement, and social cohesion (Claridge, 2004). According to Burt (2000), the structure of a network—who interacts with whom, how frequently, and on what terms—thus has a major bearing on the flow of resources through that network. Those who occupy key strategic positions in the network, especially those who have more ties, can be said to have more social networks than their peers, precisely because their network position gives them heightened access to more and better resources.

Another than that, centrality is another outcome to indicate a high social capital person. The more central a person is in a network, the higher social capital that person will be (Ghaffar & Hurley, 2020). It is also somehow a concept that rephrases people who do better will be well connected. For example, a person who performs well will be the point of reference for another person. Or a person who knows a lot of people in a network will easily get a project. Or some people just become famous for their character without having to be in an important position. Interestingly, this strength of centrality can be measured. The term used to measure centrality, are degree centrality, betweenness centrality, closeness centrality, and eigenvector centrality.

According to the Cambridge intelligence website, Centrality measures are a **vital tool for understanding networks**, often also known as graphs. These algorithms use graph theory to calculate the importance of any given node in a network. They cut through noisy data, revealing parts of the network that need attention – but they all work differently. The information gathered from the Cambridge intelligence website is compiled in the table below.

	Between	Degree	Closeness	Eigenvector
Meaning	Number of times a node lies on the shortest path between other nodes	Degree centrality assigns an importance score based simply on the number of links held by each node	Scores each node based on their ‘closeness’ to all other nodes in the network.	Eigencentality then goes a step further by also considering how well connected a node is, how many links their connections have, and so on through the network.
What it tells us	which nodes are ‘bridges’ between nodes in a network?	How many direct, ‘one hop’ connections each node has to other nodes in the network	This measure calculates the shortest paths between all nodes, then assigns each node a score based on its sum of shortest paths.	Identify nodes with influence over the whole network, not just those directly connected to it.
When to use it	For finding the individuals who influence the flow of a system	For finding very connected individuals, popular individuals, individuals who are likely to hold most information, or individuals who can quickly connect with the wider network	For finding the individuals who are best placed to influence the entire network most quickly	‘all-round’ SNA score, handy for understanding human social networks, but also for understanding networks like malware propagation.
How to use them	Employees with high betweenness connect diverse groups that, without their help, probably remain unconnected. The employee who brokers many paths not only links others but also tends to mediate the flow of resources and control them by deciding whether the resource can pass further or should be	Employees with many connections tend to be in the center of groups and bond the whole network or its parts (Burt, 1999). They also may have access to information and know the organization well (Lin, 1999).	These employees are well-integrated, so any information reaches them faster than others, and they receive most of the information flowing within the network in a short time. That gives them the ability to quickly receive and transmit information (Monge and Contractor, 2003). In consequence, their voices tend to be heard by many others,	Employees with high eigenvector tend to have a global influence on the entire network. They have direct connections with influential employees with many contacts and have a direct impact on them. Influential network members do not need to have many connections; it is enough to have relations with those network members who

	stopped (Monge and Contractor, 2003). Such employees are particularly important for the projects and actions that require cooperation between diverse groups or usage of diverse information and knowledge (Czepiel, 1974)		and they tend to know most of the information flowing “through the grapevine” (Monge and Contractor, 2003). Having the latest information and mediating its flows, those employees can be called network pulse takers. Also, because their voices are heard by others, it is a good idea to keep in contact with them in moments of change. They can both quickly inform and influence others and collect feedback.	have a lot of connections. Employees with high eigenvector centrality can be potentially good change agent and opinion-makers because they can influence others both directly and indirectly.
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Figure 2.1 Centrality Measure by Disney (2020) and Zbieg, Zak, and Batorski (2016)

In short, these centrality measures indicate the different functions of each central person or the change agent. If the organization wanted to connect diverse groups in the organization, they can select a person with high betweenness centrality to execute the task. If the organization aims to gather information on how to improve organizational performance, then, they can find a person with a high degree centrality to collect information. Moreover, if an organization aims to make a quick change and the information needed to spread fast, then they can find a person with high closeness centrality to execute the change. Lastly, for idea generation or company expansion, the organization can find a person with high eigenvector centrality to utilize his strength on making a change strategy, using his advantage on global influence, and to influence the people in his entire network.

Conclusion

Organizations have to go through change in order to survive. In above discussion, most of organizational change failure because they emphasized more on macro-level instead of micro-level. To ensure successful of change, selecting the right change agent is crucial. Methods of finding the right change agent can be adopted empirically by using social network analysis.

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