

## The Effectiveness of Virtual Teambuilding using Kirkpatrick Model: A Case Study

Sures Muniandy<sup>1</sup>, Thulasimani Munohsamy<sup>2</sup>

<sup>1</sup>(Independent Researcher, Malaysia)

<sup>2</sup>(Independent Researcher, Malaysia)

### ABSTRACT

Teambuilding is conducted with the aim to enhance the productivity, the quality of the services rendered and to increase the profitability of the organisation. There are many reasons why an organisation would initiate team building activities, predominantly it is to enhance team and organizational performance. With Covid-19 rattling the world since early 2020 causing a massive pandemic, almost all countries around the world had initiated Movement Control Orders, work from home (WFH) and most team interactions took place only virtually. This study was conducted on a performing & transforming team to observe the motivation level of the participants, their engagement at work and relationship among the team members. Kirkpatrick & Tuckman model was used as the basis of this study. The results of the study show that the virtual teambuilding that was conducted had positive impact on the participants. This study proves that an effective teambuilding can be conducted virtually, does not necessarily need to be in face-to face mode.

**KEYWORDS** - Virtual Teambuilding, Kirkpatrick Model

### I. INTRODUCTION

Teambuilding is conducted with the aim to enhance the productivity, the quality of the services rendered and to increase the profitability of the organization. It revolves around activities conducted as a team or a group of people brought in together to function or perform certain tasks. The philosophy behind a teambuilding activity is that organisations are made of group of employees, who can effectively work as a team instead of individuals. It develops great communication skills, problem solving skills as a team, time management, leadership skills and to achieve a goal as a team [1]. There are many reasons why an organization would initiate team building activities. Some of the reasons are when there is a need to uplift morale ie motivation in the team, when there is a gap in communication, lack of innovation and imagination, low in quality of services, if any conflict is identified and even to establish good communication among team members [1]. In fact, in the book entitled 'The Five Dysfunctions of a Team' by Patrick Lencioni, the author mentioned that it is not the finance, not the strategies, not the technologies but the strong teamwork among employees that functions as the key competitive advantage. Further to that, Shandler and Egan also mentioned that a team can be transformed into a very high performing team by applying right team building activities to any group [2]. Based on that philosophy, teambuilding activities have been carried out in organisations for many decades. With Covid-19 rattling the world since early 2020 causing a massive pandemic, almost all countries around the world had initiated Movement Control Orders in various forms to limit human to human physical interaction to curb the spread of the virus. Many organisations were forced to convert their usual employee model of work from office (WFO) to work from home (WFH) in such a short span of time. With this shift, many interactions, be it among peers and even with customers, moved into virtual mode. The need for teambuilding activities becomes essential, as most employees have been functioning with little human interactions. Employee's face to face interaction and motivation to perform their tasks effectively has reduced, creating insecure work environment and risk to organisational performance in many instances. However, organisations themselves are facing challenges to conduct teambuilding activities to enhance their employee's motivation and engagement with no face-to-face interaction opportunity. Organisations must find their ways and means to conduct these activities despite the challenges by being agile, creative, and innovative. Technology has created many platforms for making this possible. The acceleration in digital transformation due to this pandemic is mind boggling and has facilitated team building activities to still happen but in virtual mode. Many organisations started organising virtual teambuilding activities. This study investigates

a virtual teambuilding that was conducted in a team from a healthcare organisation after about one year of interacting predominantly virtually. The objective of the study is to observe the team building outcomes using the Kirkpatrick model, (1) the reactions of the participants of the virtual teambuilding activities, (2) what have the team members learned from the activities, (3) if the teambuilding is beneficial for their work purposes and (4) how did the participants find the overall outcome of the activities. The study was conducted to observe the motivation level of the participants, employee engagement at work and the relationship among the team members. This study will be a great contribution to the organisations to conduct successful virtual teambuilding activities besides enhancing the motivation of their own team.

## II. REVIEW OF LITERATURE

Studies on Teambuilding and Virtual Teambuilding, Boss [3] defines teambuilding as an action taken to enhance the effectiveness of working as a team to solve problems and to confront with each other. Meanwhile Hackman and Wageman [4] further improvise the effectiveness to 'productive output'. By conducting teambuilding activities, it can bring the members of the team together, feeling of working as a team and the feel of belonging as a team in an organization. However, the new norm has innovated the idea of conducting team building virtually. There are many challenges to conduct virtual teambuilding activities. Even more challenging is to conduct virtual teambuilding activities. Virtual communication leads to many confusions due to lack of clarity as more messages need to be digested and it is possible for confusion to take place. Furthermore, it is noticed that virtual communication is more focused on task rather than social interaction. This leads to less efficient communication and the team's members have weaker links in terms of relationship building. Another issue encountered was lower trust issues and team cohesion lacks [5]. The same study recommended various virtual 3D games that can be played for team building purposes. Among suggested activities was 'Crossing the Ravine', 'Tower of Babble', 'Castle Builder' and few others. This shows that virtual teambuilding activities are possible to be conducted. Another study was conducted by Swaati, Neerja and Vandana on virtual teambuilding shows that a few factors are crucial to be identified before conducting a virtual team building such as dependencies among team members, time management, collaboration concerns, capability of taking information, technology reliance, communication tools and the results implementation. The findings of their study show the useful factors determining the virtual team ability and efficacy. The study used SEM in order to develop a set of factors for managers to use for establishing virtual teams. The research was conducted with 520 participants from IT industry [6].

Besides that, another study was conducted by Qiu, Tay and Wu to find out the impact of Virtual Teamwork on Real-world collaboration. The study was conducted with 60 participants by asking them to work in groups to play Nintendo Wii music game. The participants were divided into two groups, the control group were asked to play the game individually and the experiment group were asked to play the game as a group. All the groups were asked to perform a problem-solving task collaboratively. The results of the finding showed that the experimental group significantly performed better than the group that work individually. Therefore, the study suggests that there is positive impact on the virtual teamwork on collaborative problem solving and group creativity in the real world [7]. There are also studies conducted on the challenges faced conducting teambuilding activities virtually. One such study was conducted by Smith and Ruiz [8]. In this study, the review of literature was assembled to underline the challenges faced by virtual teams. A total of 225 studies that are relevant were looked into highlighting on the use of technology. The results suggested of implementing the groupware designing that supports the virtual teams [8].

**Teambuilding and Evaluation Models:** This study used the well-known Tuckman model of group development stages as the basis. The Tuckman model suggests a five-stage model namely forming, storming, norming, performing and finally transforming. In the forming stage, the groups were established, and members are getting to know each other. In the second stage, the team discussions are carried out to solve a problem or task given. The agreement and disagreement approach are to be used to overcome the challenges that happens in this stage. Meanwhile in the norming stage, the team starts working together in a team spirit and progress happens. Without realising the team bonding takes place here in this stage. Performing stage is where the team shows their results of working as a team, achieving common goals and accomplishing tasks assigned. The final stage is the transforming stage. Here is where the team feels that they have accomplished the objective as a team together, they review their time together and plan for future event [1]. As for the evaluation of the whole teambuilding activities, the Kirkpatrick model is applied to look into the effects of the training. This model looks into four stages namely the reaction, the learning, behaviour and results. The reaction looks into, how they feel about the training and the learning looks into the skills and the learning that takes place. The third stage looks into the participant's behaviour, if the learning is useful for their work and if they are taking it positively and the last stage sees the results, which is the overall outcome of the training programme [1]. Based on these two models, this study was carried out. The method and the results of the study will be discussed in the next paragraph.

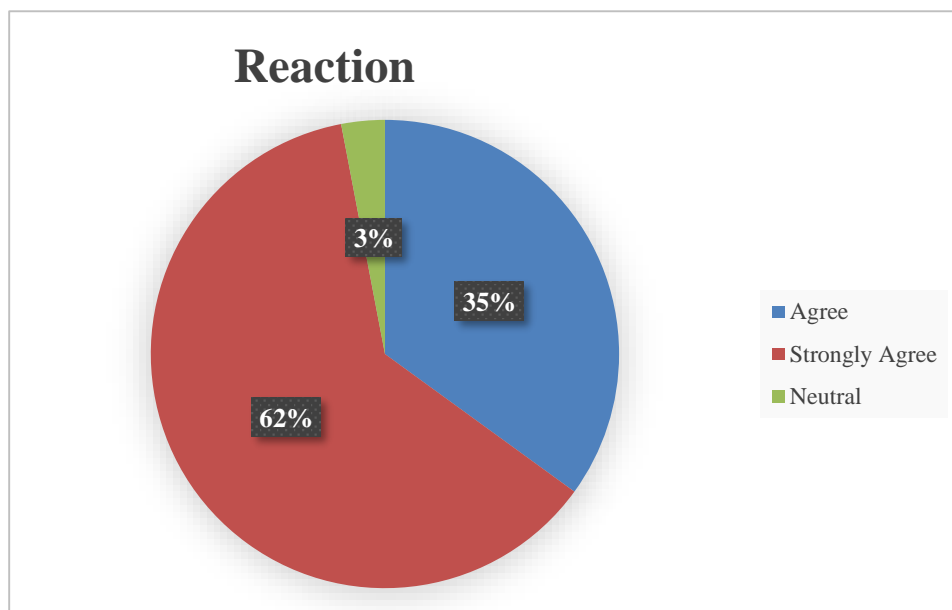
### III. METHODOLOGY

This study is conducted using descriptive survey method. The study was conducted with 17 staffs of a medical device company. This team had gone through all the group development stages and it was at the performing & transforming stage. However, due to WFH driven by the global pandemic, there is always a risk on employee engagement, gaps in communication and impaired motivation in the team after a year of interacting mostly virtually, a virtual teambuilding activity was initiated. This event was conducted using the Microsoft TEAMS application. First, the team were all gathered virtually, and the participants were put in groups of four. The selection was done randomly. Each group nominated their own group leader and group name. A main lobby was created for all participants and trainers to communicate and each group created their own groups using the Microsoft TEAMS as well so that they can gather in that virtual group to communicate. The training was conducted for half a day (four hours). The trainer/moderator joined all the virtual lobbies to observe the team interactions and provided feedback. In total, three activities were conducted namely, group formation (introduction stage to acclimatize the team and accept their 'new' members), virtual treasure hunt (team members had to search a few items ie the treasure, within their home environment and showcase to others) and virtual presentation (they had to create a product/service and promote/sell to audience). For each activity, all group members were given 20 minutes to plan & execute and another 20 minutes to showcase and deliver their presentations. At the end of the training, a motivational video was played to bring the team together, to refresh their minds on the purpose of their work and how significant their role is to mankind. To evaluate the effectiveness of the virtual teambuilding, a descriptive survey form was given to all the participants using google form. In total there were 11 items in the google form. 5 Likert-type scale questions were used to answer 9 questions and 2 open ended questions were given for the participants to evaluate the effectiveness of training.

### IV. RESULTS

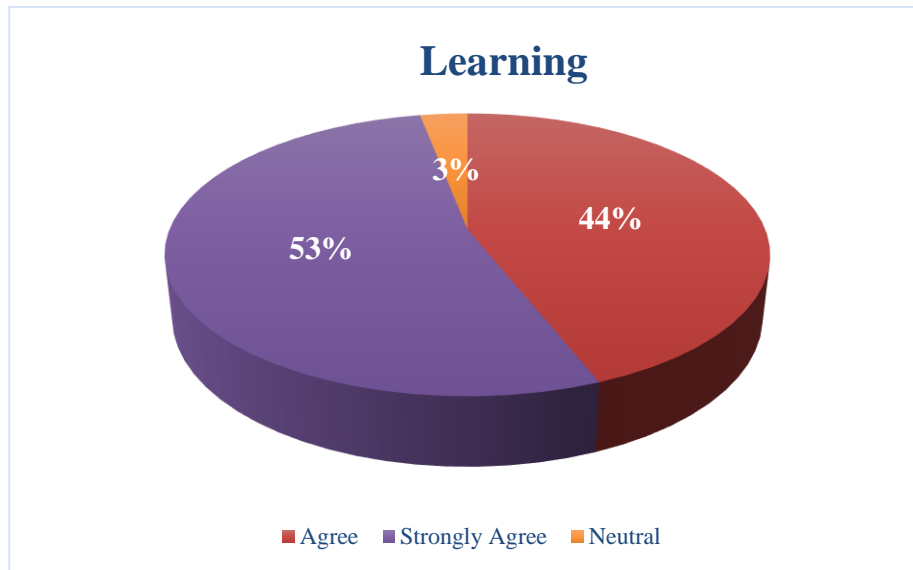
The analysis of the data was done and below are the results of the data. The participants were evaluated to find out the effectiveness of the virtual teambuilding conducted.

Figure 1: Reaction to the Virtual Teambuilding



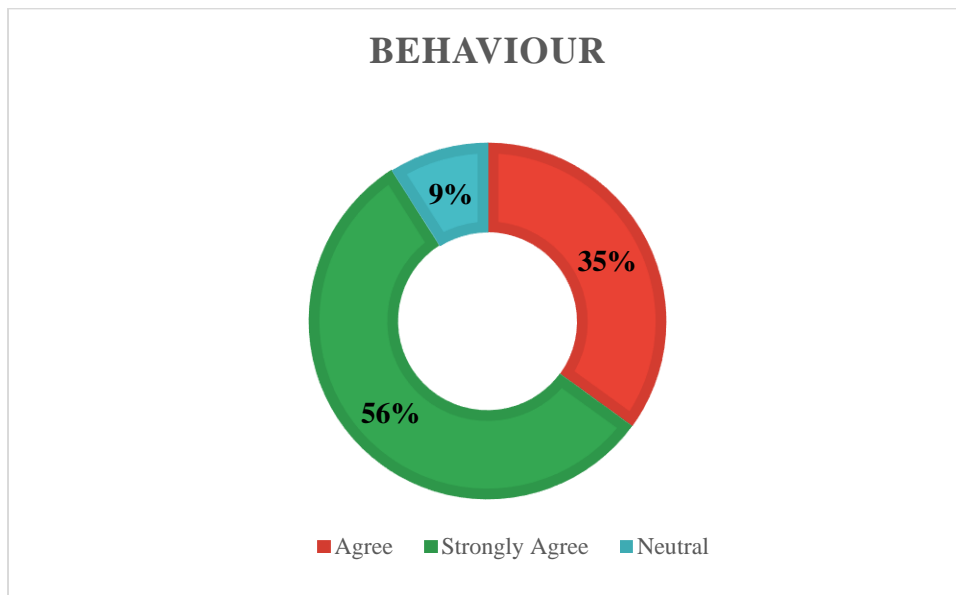
All the participants reacted positively towards the virtual teambuilding that was conducted. Figure 1 above shows the results of the reaction of the participants. 35% of the participants agreed that they were satisfied with the training conducted. Meanwhile, 62 % of the participants strongly agreed that they were happy with the training provided. Only 3% stays in the neutral category.

Figure 2: Learning from the Virtual Teambuilding



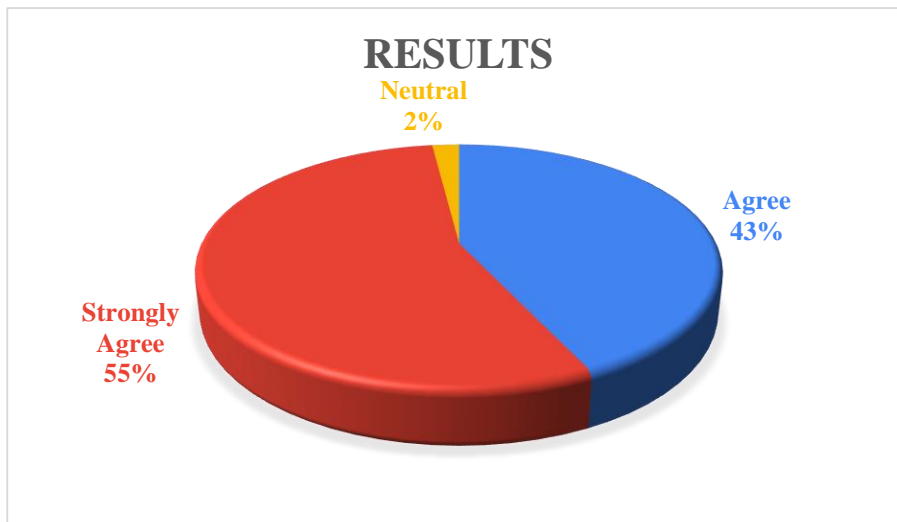
Based on Figure 2, it is clear that learning took place among the participants during the virtual teambuilding activity. 44% of the participants agreed and 53 % of the participants strongly agreed that learning took place during the virtual teambuilding. Only 3% chose to be on the neutral side.

Figure 3: Participant Behaviour towards Virtual Teambuilding



As for the overall behaviour, based on Figure 3 shown above, 35% of the participant agreed that the virtual teambuilding was useful and beneficial for them as well as for their work. 56 % of the participant strongly agreed towards efficiency of the virtual teambuilding event. Only 9 % of the participants stayed neutral towards their feeling about the virtual teambuilding.

Figure 4: Results of the Virtual Teambuilding Event



Based on Figure 4 shown above the 43% of the participants agree that the training was effective and overall training was meaningful for them. 55% of the participant strongly agreed to the results of the training and only 2 % stayed neutral.

Figure 5: Participant feedback on what they liked most about the Virtual Teambuilding

What did you like most about this training?
Everyone had a good time
Team building
Motivational video
Teamwork
Teamwork
Motivational video
Group activity
Participations from all. relax mode. sporting
Team Exercise
Interaction with the team
All
The activities planned were useful and I enjoyed
Engagement and fun
Interaction and activities
Interaction with team members
Teamwork and creativity

Figure 5, above shows the results of what the participants like the most about the training. Majority of them like the teambuilding activities conducted, the teamwork spirit among the participants, the interaction that took place and the motivational video that was played.

Figure 6 : Participants feedback on what was not useful from the training

What was least useful of the training?
n/a
None
Nil
N/A
NIL

Nothing
N/A
None
none
None
None
N/A
I prefer if it was done on weekdays
Nil. I hope this team building will be done virtual again if covid don't resolve.

Based on the feedback shown in Figure 6 above, there was nothing that was not useful from the Virtual teambuilding training that was conducted. Only one person commented it to be done on a weekday and another person hoped that the virtual teambuilding will be carried out again if the new norm continues due to Covid-19 outbreak.

### V. CONCLUSION

The results of the study show that the virtual teambuilding that was conducted had positive impact on the participants. The participants reacted positively towards that training conducted, they were positive about the learning that took place through this virtual team building activities. The participants had positive behaviour and the overall results show that the virtual training had a positive effect on the participants. This study proves that an effective teambuilding can be conducted virtually, and does not necessarily need to be in face-to face mode. The study was conducted to observe the motivation level of the participants, employee engagement at work and relationship among the team members. Based on the feedback from participants, the above objective is achieved where across the board, the team displayed high level of motivation, engagement and positive relationship among the members. The teambuilding had brought in positive feelings and attitude to participants. This virtual teambuilding activity also has enhanced other social and soft skills such as, leadership skills, time management, communication skills, persuasive skills and also their presentation skills.

### REFERENCES

- [1] Fapohunda, M. Tinuke: Towards Effective Team Building in the Workplace. International Journal of Education and Research, ISSN: 2201-6333 (Print) ISSN: 2201-6740 (Online)1 (2) 1-12, (2013).
- [2] S, Neelam, K, Shilpi : Impact of Team Building Exercises on Team Effectiveness. International Journal of Marketing and Human Resource Management, 6(3), 89-97, 2015.
- [3] R.W. Boss: Teambuilding and the problem of regression: The Personal Management Interview as an intervention, Journal of Applied Behavioural Science, 19(1): 67–83., 1983
- [4] R. Wageman: Critical Success Factors for Creating Superb Self-Managing Teams, Organizational Dynamics, Vol. 26 (1), 49-60, 1997.
- [5] B.E Jason, L.Kurt, B.Katherine, A.K.Wendy: Games for Virtual Team Building, Proceedings of the Conference on Designing Interactive Systems, February 25- 27, 2008
- [6] K.B Swati, P. Neerja, A.Vandana: Virtual Team Effectiveness: An Empirical Study Using SEM, Science Direct, Procedia Computer Science. 122, 33- 41, 2017
- [7] L. Qiu, W.W.Tay, J.Wu: The Impact of Virtual Teamwork on Real-world Collaboration, Proceedings of the International Conference on Advances in Computer Entertainment Technology, ACE 2009, Athens, Greece, October 29-31, 2009.
- [8] S. M. Smith, J. Ruiz: Challenges and barriers in virtual teams: a literature review. SN Appl. Sci. 2, 1096, 2020.