

The Mediating Role Of Knowledge Transfer Between The Relationship Of Training And Accepting New Technology In The Era Of Industry Revolution 4.0

Mohammed Kamruzzaman¹, Mahmud Hamid²

¹ Assistant Professor International University of Business Agriculture and Technology (IUBAT),
Bangladesh

² Putra Business School (PBS), Universiti Putra Malaysia, Serdang, Malaysia



Abstract – IR 4.0 helps businesses to grow faster and smoother. RMG sector of Bangladesh acquire the blessing of IR 4.0 and running their business all over the world very smoothly. But whenever any changes happen, conflicts arise. This study intended to assess the mediating effect of Knowledge Transfer in the relationship between Training and Accepting new technology by employees. for this purpose, online questionnaires have been used and a total of 474 out of 600 questionnaires was returned. MS Excel has been used to analyzed and shows the interpretation of variables. The result shows that Training has positive impact on accepting new technology. Knowledge share has a significant impact on the relations of Training and Accepting new Technology. Based on the discussion of the findings has been given in this research paper along with limitation and scope for future study.

Keywords – Training, Knowledge Sharing, Accepting new Changes, IR 4.0, AI.

I. INTRODUCTION

21st century is all about advance and artificial intelligence-enabled work system in the organization. Industry Revolution 4.0 has been transforming the business world. The 4th revolution is not hype; it's a successful revolutionary era (Ardito et al., 2019; Buer et al., 2018; Schroeder et al., 2019). IR 4.0 is all about interconnected computers, smart materials, intelligent and automatic machines, which helps the organization to minimize the cost and improving the profit (Gilchrist, 2016, Ghobakhloo, 2020). Since 2011 the digital transformation by IR 4.0 grabs attention industrialists and governments worldwide (Ghobakhloo, 2018; Nascimento et al., 2019, Beier et al., 2018; Müller et al., 2018a).

Bangladesh as a developing country, RMG sectors also coping with the world (Schroeder et al., 2019). As it is a manufacturing industry advance technology brings smoothness in the production process (Lasi et al., 2014). With the latest and greatest technology creates demands to acquire new and developed skills to operate the machines (Hamid et.al.,2020). And these changes in the organizations create a conflict among employees and workers to learn new things and apply them to their actual jobs. To cope with these changes supervisor supports in their training is highly needed (Hamid et.al.,2020). New technology brings new challenges, only leaders can make employees cope with new changes (Schroeder et al., 2019). The training process usually helps the trainee to enhance skills through learning new things (Ghobakhloo, 2018).

As IR 4.0 has been developed for more flexible work system but its newness creates conflict. Which in demands needs to training to learn the system (Beier et al., 2018). With the issue of accepting new technology in the workplace, this study aims to identify the impact of training on the issue arises among employees accepting new technology, where knowledge transfer plays a mediating role.

II. LITERATURE:

2.1 Training and accepting new technology

Training is crucial as the 21st century is all about new and advance technological era (IR 4.0). Thus organizations are constantly developing their technical support to compete with the market. Here training is crucial as employees and workers of RMG sectors need to know the process of running and using new technologies (Petersen, 2019). The whole garment industry is going forward by gaining the benefits of technology (Devi & Murthy, 2005).

Training is the process of teaching operations to do their present job more effectively and efficiently. Human resourcing is key to determining organizational success (Blume, Ford, Baldwin, & Huang, 2010). Training focuses on changing or improving the knowledge, skills and attitudes of individuals that will best fit with the technological advancement (Petersen, 2019). To have the greatest impact on firm performance, trainers can no longer prevail with basic training design knowledge; their grasp of the entire training and performance improvement process must be comprehensive and focused on how to help learners apply their learning on the job (Bibi, 2019). Current research has expanded these areas and identified the role of training on technological advancement which influences trainees to use new learning on the job (Blume et al., 2010).

Ansari (2018), technology brings new opportunity, thus organizations invest considerable sums of money in technological advancement and it is imperative for organizations facing global competition continues to improve employees' knowledge, skills, abilities and attitudes. Thus, researchers and training professionals have focused on the factors affecting the transfer of training to the workplace for better understanding of new technology. This way workers can accept the challenges that arise from technological changes in the organization (Tabiu et.al.,2020).

H1: Training has a significant positive impact on employees and workers in accepting new technology

2.2 Knowledge transfer and accepting new technology

Conventionally, some studies demonstrated knowledge transfer (KT) as the most important factor for training effectiveness (Cao et al., 2016). According to Nikandrou et al. (2009), the transfer can be direct and indirect, whereas direct training transfer to the workplace means that the trained people is able to apply the knowledge and skills acquired to his work and indirect transfer means that the trained people may transfer the skills or knowledge that were developed in training to the actual workplace, not as part of the training objectives but as a result of the interactions and methods used (Sun et.al.,2020).

Knowledge transfer (KT) is the almost magical link between task performance and something which is supposed to happen in the real world (Pee, 2018). KT refers to the process of exchange knowledge between each together in the organization (Kim et al.,2011, p. 112). To cope with changes in technology, knowledge transfer plays an important role. Where one individual can help use his/her knowledge gains from training can share to others in terms of using types of machinery and another tech (Cao et al., 2016).

Soda et al., (2019) entail that KT as the effective and continuing application by trainees to their jobs the skills and knowledge achieved from both on the job and off the job training. Sofo (2007) defined KT as the extent to which the learning acquired from the training session is applied and maintained on the job to increase performance and productivity. It has become easier when everyone transfers their knowledge with each other. This process helps to boost the training outcome and accepting the new technology very easily (Sun et.al.,2020).

H2: Knowledge Transfer has mediated the relationship between Training and Accepting New Technology.

III. FRAMEWORK

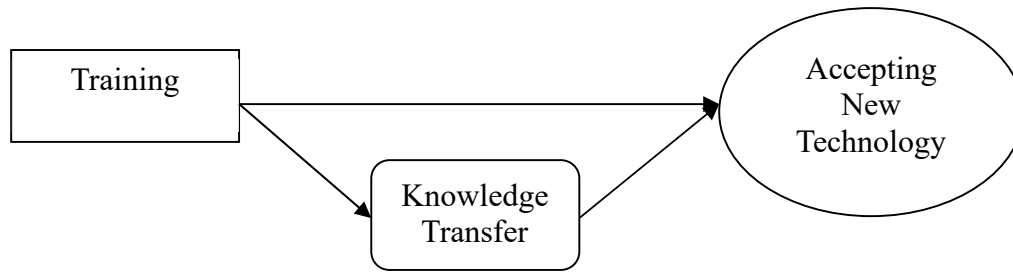


Figure 1: Conceptual Framework.

IV. METHODOLOGY

For this study, a questionnaire survey has been done on the RMG sector of Bangladesh. The 5 points Likert scale has been chosen for this study. Respondents were conducted through online-based media. This study has been done on full-time employees and workers in the RMG sector of Bangladesh. The total of 474 out of 600 questionnaires was returned, giving a 79% response rate overall. More than a month needed to collect those data from this sector. All the respondents were asked questions related to their training and the process of their transferring knowledge among each other regarding using new technology.

4.1 Data Analysis

All the responses have been analyzed with help of MS Excel. Down below all the analyzed data has been shown.

Response of Training

Table 1: Analyzed response on Training.

Statements	Scale	Frequency	Rate (%)
The way the trainers taught the material made me feel more comfortable that I could apply it to the job.	Strongly disagree	17	3.6
	Disagree	69	14.5
	Uncertain	44	9.09
	Agree	294	62.1
	Strongly agree	52	10.90
Training contents are relevant to my job.	Strongly disagree	9	1.81
	Disagree	17	3.63
	Uncertain	52	10.90
	Agree	336	70.90
	Strongly agree	60	12.72
The delivery of the training suitable for my learning.	Strongly disagree	0	0
	Disagree	43	9.09
	Uncertain	43	9.09
	Agree	336	70.90
	Strongly agree	52	10.90

The response of Knowledge Training

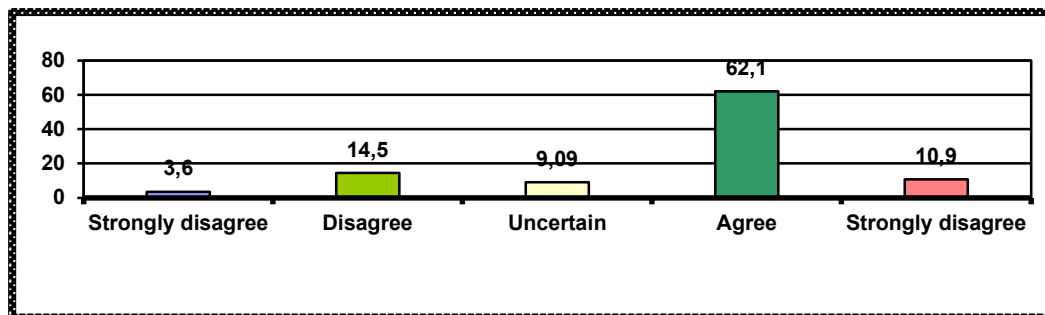
Table 2: Analyzed response on Knowledge Transfer (Mediator).

Statements	Scale	Frequency	Rate (%)
I am confident in my ability to learn and use new learning at work	Strongly disagree	0	0
	Disagree	52	10.9
	Uncertain	86	18.18
	Agree	327	69.09
	Strongly agree	9	1.81
I can easily transfer my knowledge to my job.	Strongly disagree	17	3.63
	Disagree	43	9.1
	Uncertain	78	16.36
	Agree	293	61.81
	Strongly agree	43	9.1
The more I transfer, the more I learn	Strongly disagree	17	3.63
	Disagree	9	1.81
	Uncertain	52	10.9
	Agree	267	56.36
	Strongly agree	129	27.27

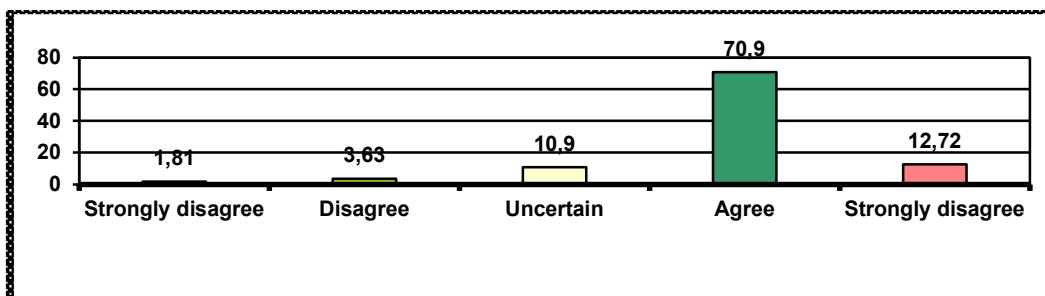
V. DISCUSSION

The way of the trainers taught, training contents, the delivery of the learning process was selected as the determining factors of training design. Table 1 shows the result of 474 responses to training design questionnaires. Upon the visual inspection of the result of table 1, it is clear that the training design of the RMG sector training program consistent with trainees' transfer of training. Of the responses, about 73% somewhat agreed that the way the trainers taught training materials made trainees feel more comfortable to apply the training to the jobs, whereas only about 20% responded negatively. About training contents, 73% somewhat agreed that pieces of training are relevant to their job, whereas only 5% somewhat disagreed that the pieces of training are not relevant to their job. Besides, significantly more trainees (82%) agreed that the delivery of training suitable for them.

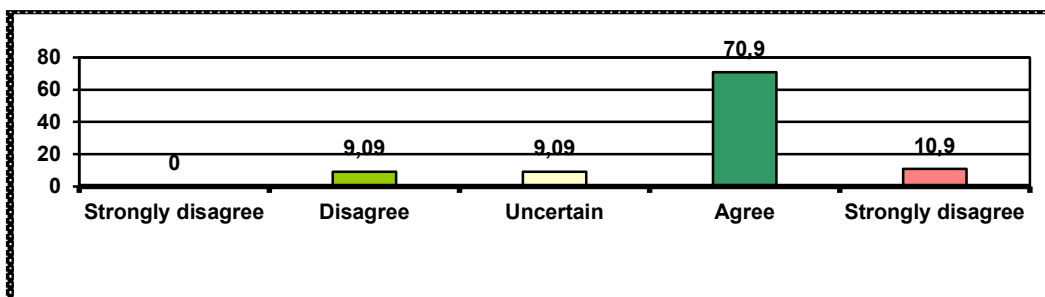
H1a: The way the trainers taught the material made me feel more comfortable that I could apply it:



H1b: Training contents are relevant to my job:

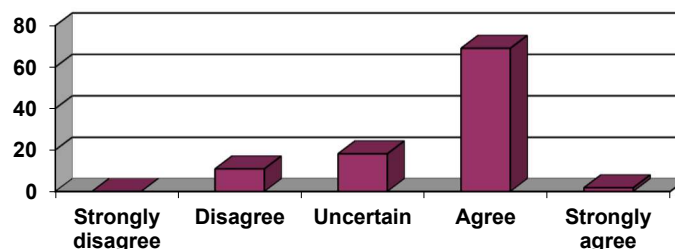


H1c: The delivery of the training suitable for my learning:

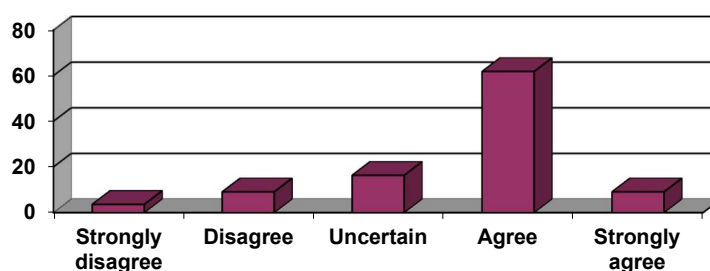


The measure of individual characteristics consisted of four statements in the questionnaires. Table 2 shows the result for the individual characteristics measurement statement. From this table, researcher found that most of the trainees (71%) confident of their ability to learn and transfer of their learning, while a significant 18% were uncertain. As a consequence, around 71% agreed that they can easily transfer their training to the jobs, while only 13% responded about their difficulties to transfer. 422 trainees of 474 agreed that they enjoy learning new things, which indicated that 89% of trainees have the motivation to learn.

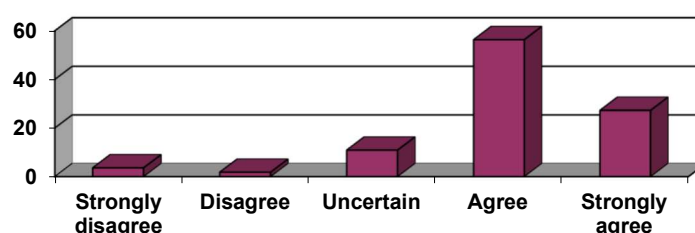
H2a: I am confident in my ability to learn and use new learning at work:



H2b: I can easily transfer my training to my job:



H2c: The more I transfer, the more I learn:



The aim of this part of the research is to discuss the findings of surveys to find out if the research objectives have been met or not. The results of the study highlight the importance of KT in the relationship between training and acceptance of new technology. Therefore, these elements are important for the purpose of developing new skills to perform the job. KT has successfully mediated the relationship between training and acceptance of new technology. Thus it is clear that training has an impact on employee's acceptance of new technology but Knowledge Transfer (KT) has boosted their relationship stronger. Another study also has a similarly positive result of the impact of KT (Sun et.al.,2020). Training has also been used to develop employees performance and how to cope with new changes (Hamid et.al.,2020). It is important to track employees reactions and need to help them to accept the changes in the organization. In that case, new technology needs new skills, where training by organizations helps a lot to cope with changes and do a better perform.

5.1 Limitations and Recommendation

This has tried to cover the impact of mediator KT on Training and Accepting New Technology. But this study has limitations too. At first, this study hasn't used any demographic variable. For future study, it will be recommended. This study has limited resources to analyze its data, for future research it will be recommended to use more analysis tools. This research has been done to identify the impact of training on acceptance to new technology, for the future study it will be recommended to study in the area of AI and its impact on employee's performance. Can AI train employees to do actual jobs will be recommended for further study.

VI. CONCLUSION:

This study has achieved its aim which is to measure the mediating role of knowledge transfer in the relation between training and acceptance to new technology. In the era of industry revolution 4.0 where all the industry running for acquires new technology, even organizations have been able to achieve AI-enabled work process. Bangladesh RMG sector is trying to cope with the world and acquiring the latest technology as pert their ability. But the latest technology needs new skills to run. Training is the way to teach employees and workers to smoothly perform their job task. Whenever any changes occur, employees feelings about that change might not be positive, but training makes this change process easier. Knowledge transfer has been successfully able to help the training process to be successful in the workplace. The aim of this study has been able to achieve success by proving the impact of training on the acceptance of new technology.

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