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Compare and Contrast of Knowledge Sharing in Virtual Teams in IT Companies and Manufacturing Industries using the Theory of Planned Behavior

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Abstract

The purpose of this research work is to Compare and Contrast of Knowledge Sharing in Virtualteams in IT companies and Manufacturing industries Using the Theory of Planned Behaviour. In this research study, we understand the Theory of Planned Behaviour (TPB) Models with Structural EquationModeling Methodology. In this research study, we use TOOLS like IBM SPSS (Statistical Package for Social Sciences), IBM AMOS, TABLEAU.

Scope of Virtual Teams

Though virtual teams hope deeply on information and communication technology but it is not just circumscribed to the IT industry. Today almost every industry sector extending from construction, academics, manufacturing, non-profit, automotive and healthcare and to retail are promoting virtual teams. From corner to corner of the world, on one hand loftier organizations like Hewlett Packard, Whirlpool, Texas Instruments, British Petroleum etc with their gigantic possessions and proficiencies fascinated onthe doles of virtual teams to strengthen their efficiency and services to customer. Fundamentally all principal occupations or job roles like Research and development, engineering, finance, sales, logistics, business development and Human resources can be consummated in a virtual atmosphere. As Covid 19 affected the globe and made a huge loss, virtual teams supported the tantrum hence letting the company employees not to fail in performing their job roles.

Keywords: *Theory of Planned Behavior, Virtual teams, IT sector, Manufacturing sector,Knowledge Sharing.*

Introduction and Review of Literature

SNW use may increase teenagers' self- esteem and well-being if the tone of the criticism provided by viewers of their profiles is positive, but decrease self- esteem when the feedback is adverse, this research has used Theory of Planned Behaviour (Emma L Pelling,2009). Virtual teams have been seen as a exceptional practice of creating toil for managements to accomplish with the present fast changing business environment. Issues regarding virtual teams have established substantial care in both the academic and practical world. (Shemsedin Omer, Jemal Haidar,2010) Knowledge sharing using the theory of planned behavior was backed with the work of (Princely Ifinedo,2011) Students with higher intentions to binge drink were more likely to believe that their friends approved of binge drinking, this was studied using Theory of planned behavior. Community based social marketing and local campaigns are the main strategiesaccording to (Natalia Lopez,2014) Historical development of Theory of Reasoned action and Theory of Planned Behavior elements of this paper was discussed by (Daniel E Montano and Danuta, 2015) The theory of Planned Behavior with causal path was used to portray knowledge sharing among academicians(M. Punniyamoorthy, 2018). The outbreak of the COVID-19 pandemic has strongly impacted the global workplace. A great number of organizations which had never before allowed their employees to work from home then did so(Zoltek, Gabriela Anna,2021). The emergence of new organizational forms– such as virtual teams– has brought forward some challenges for teams. One such is coordinating with team members working from different zones. (Dar Blanco Fernandez, 2022) Today, using the online whiteboard to share knowledge in spread

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conferences has turned to be a usual tradition. Research has endeavored to picture attendees' collaborating activities in whiteboard tools to support the virtual team's workspace awareness (WA). However, the impact of such visual cues on attaining achievement rests not clear (Fangyu Yu, Peng Zhang, Xianghua Ding, Tun Lu &Ning Gu,2023). Thus virtual teams started playing role in organizations and this is studied by knowledge sharing in virtual teams using Theory of Planned Behavior

ORIGINALITY & RESEARCH GAP

This research is a novel to study the Comparison and Contrast of Knowledge Sharing in Virtual teams among IT companies and Manufacturing industries, based on the Theory of Planned Behaviour. In this research study, Research Gap is that limited studies have been done on the topic as well as studies have not been concentrated in Asian IT companies and manufacturing, therefore our study is unique from the others.

Tips for managing virtual teams

1. Understanding your team members.
2. Launch dependable communication.
3. Be vulnerable to more personal arrangements of communication.
4. Demeanor presentation reviews.
5. Horde team-building activities.
6. Find the right systems and tools.
7. Define working hours.
8. Recognize their achievements.

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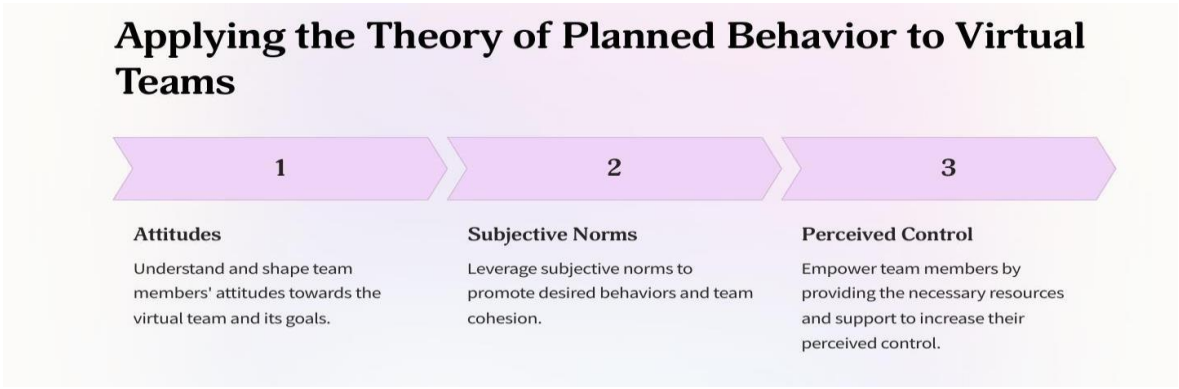

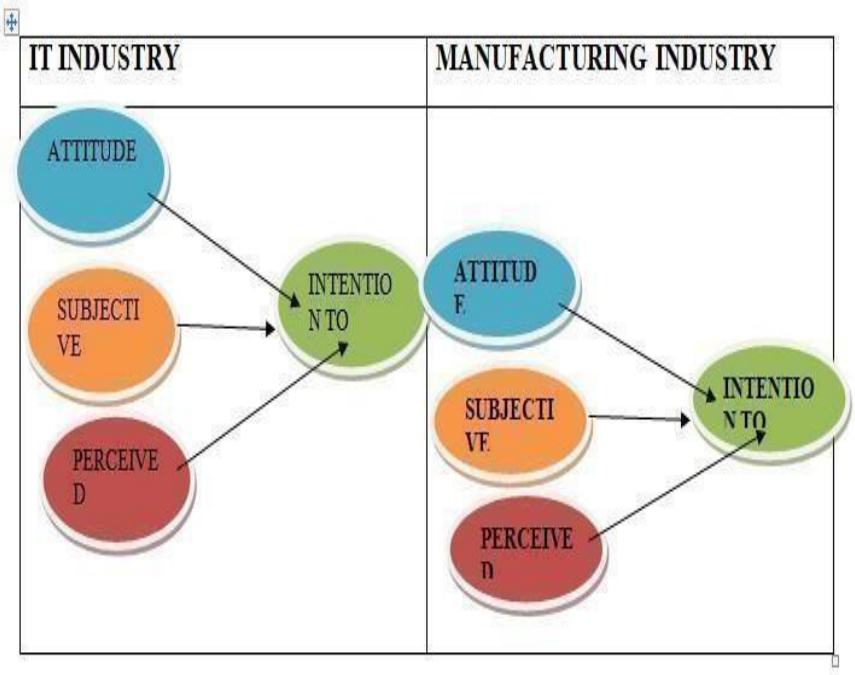

Taking 400 respondents equally in both IT and manufacturing sector we derive the following results.

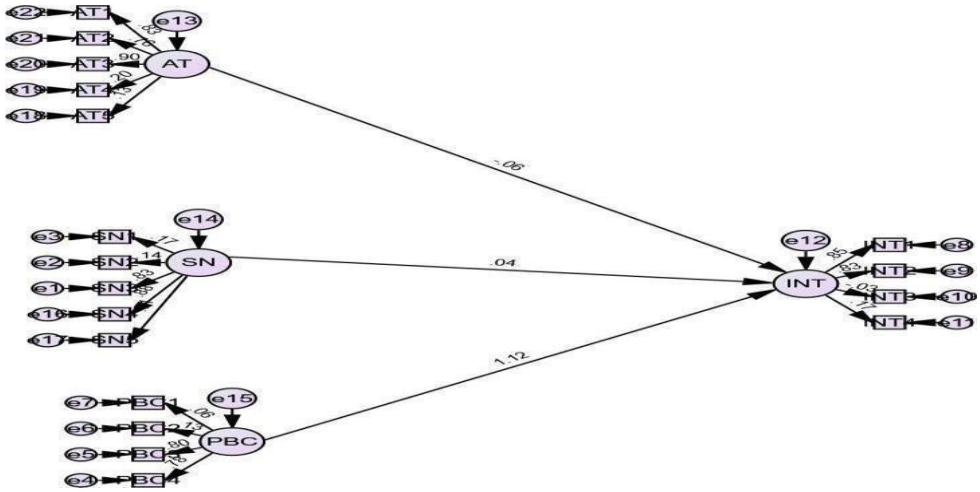

Figure1: Structural Equation Model for IT sector.

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Leading Virtual Manufacturing Teams

Establish Clear Expectations	Define roles, responsibilities, and performance metrics to ensure alignment and accountability.
Foster Engagement	Encourage active participation, solicit feedback, and recognize contributions to boost morale.
Promote Flexibility	Allow for flexible work arrangements and accommodate individual needs to support work-life balance.
Leverage Technology	Utilize the right collaboration tools and digital platforms to enhance productivity and connectivity.

Virtual Teams in Manufacturing

Virtual teams are becoming increasingly common in the manufacturing industry, allowing companies to leverage talent and expertise across geographical boundaries. This presentation will explore the benefits, challenges, and best practices for leading successful virtual manufacturing teams.

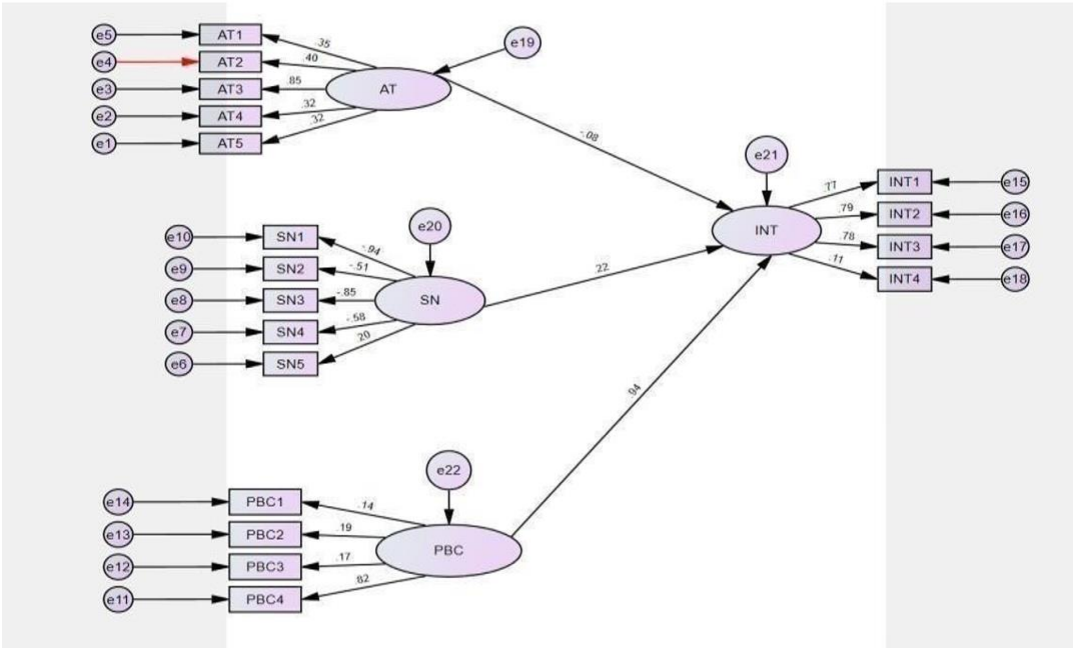

Figure 2: Structural Equation Model for Manufacturing sector.

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Table 1: Factor Loadings

SNO	Scores (IT)	Scores (Manufacturing)
AT1	0.83	0.35
AT2	0.76	0.40
AT3	0.90	0.85
AT4	0.20	0.32
AT5	0.13	0.32
SN1	0.17	0.94
SN2	0.14	-0.51
SN3	0.83	-0.85
SN4	0.88	-0.58
SN5	0.18	0.20
PBC1	0.6	0.14
PBC2	0.13	0.19
PBC3	0.80	0.17
PBC4	0.78	0.82
INT1	0.85	0.77
INT2	0.83	0.79
INT3	0.3	0.78
INT4	0.17	0.11

Table 2 : Model Fit Indices

Fit Indices	Scores(IT)	Scores (Manufacturing)	Recommended cut-off value
Measures of Absolute Fit			
Chi-Square	Chi- square =1333.881	Chi-square=1237.783	Near to degrees of freedom
d.f.	132	132	the greater the better
Chi-Square/d.f	10.10	9.37	<=5
AIC	1447.88	1351.7	
RMSEA	132	129	
Incremental Fit Measures			
NFI	0.634	0.576	>=0.90
ECVI	2.856	2.6666	
CFI	0.654	0.597	>=0.90
Parsimonious Fit Measures			
PGFI	0.489	0.444	The greater the better
PNFI	0.505	0.461	0.06 to 0.09

Bestowing on the analysis the model is fit for both manufacturing and IT sectors.

Discussion

Table 3: Comparison

SNO	Scores (IT)	Scores (Manufacturing)
AT average	0.564	0.448
SN Average	0.44	-0.16
PBC Average	0.5775	0.33
INT Average	0.5375	0.61

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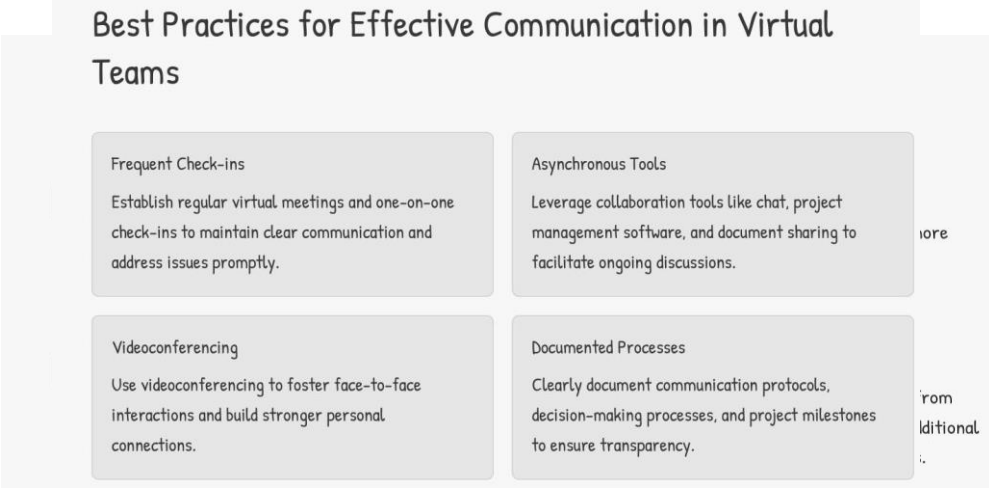
Taking averages, we find that in Attitude among virtual teams in IT sector is more than manufacturing sectors. Considering subjective norms like social pressure in knowledge sharing IT hits the rank whereas

Manufacturing is very low. PBC IT tops the list. While on the contrary of sharing knowledge among virtual teams manufacturing hits the leading score.



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Maintaining Team Culture and Cohesion in a Virtual Environment

Regular Social Interactions	Virtual team members should engage in informal conversations and social activities to maintain a sens of community.
Shared Experiences	Organize virtual team-building events, celebrations, and shared projects to foster a sense of camaraderie.
Inclusive Communication	Ensure all team members feel heard and valued by actively involving them in discussions and decision-making.
Recognize Achievements	Regularly acknowledge and celebrate individual and team accomplishments to boost morale and engagement.

Conclusion

According to the social psychologists, social associations proposed their asset from the physical propinquity of the beings. It is an uncountable challenge for virtual teams as they have limited or, no face-to-face communications. For the accomplishment of the best virtual team, it is important to overcome the cultural alterations, communication blockades, power fights and conflict to shape faith, teamwork and binding among the personalities. Although it echoes problematic it can surely be attained through operative leadership.B u t w ith the correct tactics, progresses and implementations in place, can make organizations advantage greatly from this new- age trend of virtual teams.

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