

Perspective of Misinformation/Fake News in context of Supply Chain Disruption and Mass Media during pandemic like COVID-19

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Abstract

This study has explored perspective of Misinformation/fake news in context of mass media, panic buying behaviour and supply chain disruption during pandemic like COVID-19. For this purpose, the geographical data of 100 different countries were collected through cluster sampling from Reporter without Border and Economist Impact. The cross-sectional study is applied to determine correlation, regression and indirect effect of misinformation/mass media and panic buying behaviour on supply chain disruption by using mass media theory and applied mediation analysis process procedural version 4.1 in SPSS and Sobel Test to test Hypothesis. The results illustrate that there is strong Correlation of Mass Media and Panic Buying Behaviour with Supply Chain Disruption at 0.7614 or 76.14% with significant P value = 0.0000 < 0.01, supply chain disruption is 0.58 or 58% depend on Mass Media & Panic Buying Behaviour with significant P value = 0.0000 < 0.01 and there is indirect effect of panic buying behaviour between mass media and supply chain disruption at Z value = 2.44091992 with significant P value = 0.007325 < 0.01. These results are validated through criteria validity and reliability test is 0.70 or 70% more than 0.60 which is highly acceptable. In the end, it is concluded that Misinformation/fake news effected mass media's credibility, increase panic among citizen and had adverse impact on supply chain process during pandemic like COVID-19. In this regard, pandemic issues can be solved through interdisciplinary or multidisciplinary research.

Key Words: Misinformation, Mass Media, Panic Buying Behaviour, Supply Chain Disruption, Pandemic, Media Dependency Theory

1. **Introduction**

The COVID-19 was started from the Chinese city namely Wuhan at the end of December and spread all over the world within months. The COVID-19 was declared pandemic by World Health Organization on 11 March 2020, which was spread through social interaction amongst people that had disrupted lives, livelihood, communities & businesses. WHO advised affected countries to impose restrictions on travel, social and commercial activities. The public was forced to minimize social interaction by imposing lockdown. Countries sealed their borders for activities to minimize spread of COVID-19. In this regard, digital media disseminated authentic & fake misinformation news on shortage of items that increase panic among citizen to buy necessary items in bulk which created shortage of necessary items in market due to restriction on transportation and it could not reach to final destinations. This global lockdown had also badly affected economies around the world due to disruptions in Supply Chain at different level. It had major financial repercussions across the globe and caused financial distress for businesses in many countries. Different countries introduced different measures i.e legal, financial, regulatory etc. to combat COVID-19 Pandemic (Dunford, et al., 2020),(Kiernan & DeVita, 2020),(ILO, 2020),(Abbas, et al., 2020),(Journal of Supply Chain Mangment, 2020), (Hobbs, 2020), (Zhu, Chou, & Tsai, 2020), (WorldHealthOrganization, 2020), (WHO, Detail , 2020),(Journal of Supply Chain Mangment, 2020),(Inoue & Todo, 2020), (ASTES, 2020).

This study has derived problem that occurred during COVID-19 is *lack of authentic information increases panic among customer that leads to panic buying behaviour and created shortage of food items in market, resultantly supply chain disrupted*. This problem illustrates three points: the first is negative impact of misinformation/fake news on mass media, panic buying behaviour & supply chain disruption, second there is indirect effect between mass media and supply chain disruption, and third there is correlation/dependency of mass media and panic buying behaviour on supply chain disruption. In this regard, there is need to investigate how Misinformation/Fake News effect Supply Chain Disruption and Mass Media during pandemic like COVID-19. For this purpose, the objective of this study is to take

Perspective of Misinformation/Fake News in context of Supply Chain Disruption and Mass Media during pandemic like COVID-19. The answer of above question will be found through mediating analysis because the question how is related to natural, cognitive or psychological process that causally links X to Y directly or indirectly (Hayes A. F., 2022). The mediating analysis will be helpful to investigate negative effect, correlation coefficient, regression and indirect effect of misinformation/fake news, mass media and panic buying behaviour on supply chain disruption (D. Walters & T. Mandracchia, 2017), (David P. MacKinnon & Linda J. Luecken, 2011).

2. **Literature Review**

During COVID-19, 3.8 million people/citizen were shifted towards digital media around the world. Digital Media disseminate fake news/misinformation that created panic situation among customer to buy necessary items in bulk which increase demand and decreasing supply of necessary items (Arafat, et al., 2020), (Kemp, 2020). In this regard, a study was conducted to examine usage of digital media in India during COVID-19 through an online survey by using google spread sheet for circulating semi structured questioner to known contacts in north states of India. The result shows that use of digital media was higher than TV news, newspaper, radio during pandemic (Dhanashree, Chauhan, Bhatia, Sethi, & Chauhan, 2021). Print, Electronic and Digital media communication may appear either accurate/effective to inform or misinform the people that contribute to unnecessary panic situation that resulted in undesirable public responses (Nicomedesa & Avilab, 2020). It had been found that around the globe around 6000 people were hospitalized in the first 3 months of 2020 while according to researchers at least 800 people may have died due to misinformation related to COVID-19 (WHO, 2021), (Dhanashree, Chauhan, Bhatia, Sethi, & Chauhan, 2021). Hence, it was recommended that there was need to check misleading or wrong information in large public interest (Dhanashree, Chauhan, Bhatia, Sethi, & Chauhan, 2021). Because it had been found that around the globe around 6000 people were hospitalized in the first 3 months of 2020 while according to researchers at least 800 people may have died due to misinformation related to COVID-19 (WHO, 2021), (Dhanashree, Chauhan, Bhatia, Sethi, & Chauhan, 2021). The major impact of misinformation/infodemics is low rates of vaccine acceptance across the

globe. In January 2021, Johns Hopkins Centre for Communication Programs released data w.r.t acceptance of vaccination which shows that across 23 countries, acceptance level is only 63 percent which is below the 75% to reach herd immunity to make spread unlikely (WHO, 2021). Hence, the mass media disseminated authentic or fake news/misinformation and Alternative Hypothesis #3 is given below:

H_{A3}: There is adverse impact of misinformation on mass media, panic buying behaviour and supply chain disruption

The phenomena of misinformation/fake news are not new in today's digital age. It creates uncertainty which leads to fear, anxiety, finger-pointing, stigma, violent aggression, dismissal of proven public health measures and panic buying (Nicomedesa & Avilab, 2020), (WHO, 2021). During COVID-19, the buying behaviour of customer also changed due to fear /anxiety etc and there was situation of panic bulk buying by citizens that created shortage of items at the retail, wholesale and warehouse. One of the factors of panic buying is misinformation and rumors. This is an age of connectivity hence, people are vulnerable to misinformation/rumors in the midst of pandemic. For example, in Tokyo, false information about shortage of toilet paper spread, due to coronavirus in China, that resulted in panic buying of toilet papers. The government later assured public that sufficient inventory is available as papers are domestically produced (Ph.D., 2020). The unexpected events are main cause for panic buying behaviour. There are various factors for panic buying behaviour. These factors are increased demand, of product, an anticipation of price hike, rumor, psychological factors (safety-seeking behaviour, uncertainty, anxiety reduction, and taking control), social learning, lack of trust, government action, and past experience and Media influence (Arafat, et al., 2020), (Prentice, Quach, & Thaichon, 2021). Hence, panic buying behaviour create link between mass media & supply chain disruption and Alternative Hypothesis #4 is given below:

H_{A4}: Panic Buying Behaviour has indirect effect on mass media and supply chain disruption.

The panic buying behaviour is one of the causes for creating unpredictable demand due to unexpected events like COVID-19. In this regard, a case study was conducted to examine an impact of panic buying behaviour in New Zealand during

COVID-19 by comparing buying behaviour pattern during events i.e Christmas, Easter and Black Friday with buying behaviour pattern during COVID-19. A secondary data of retail sector collected between January 2017 to 2020 from Christchurch region in New Zealand. The results show that panic buying behaviour increased during pandemic like COVID-19 due to lockdown as compared to events like Christmas etc. This illustrate panic buying behaviour had negative impact on supply chain process (Dulam, Furuta, & Kanno, 2021). Panic buying behavior is one of the causes of supply chain disruption that exposed flaws in efficient and optimized SC system during COVID-19. It had negative impact on SC process and resultantly organizations were unable to meet customer demand due to restrictions (Dulam, Furuta, & Kanno, 2021), (Yuen, Wang, Ma, & Li, 2020). Hence, panic buying behaviour create indirect effect between mass media & supply chain disruption and Alternative Hypothesis #2 is given below:

H_{A2}: Supply Chain Disruption depends on Panic Buying Behaviour & mass media.

The Media Dependency Theory & Mediazation Theory belongs to journalism/mass media field and Resource Dependence Theory belongs to supply chain management field. Out of these theories Media Dependency Theory is most appropriate theory for this research and modifications were made in Media Dependency Theory after proposed by first author. This study has taken first author's theoretical view of Media Dependency Theory. The media dependency theory is given below:

“Sandra Ball- Rokeach and Melvin Defleur was the first to develop media dependence theory and the said evolved over three decades starting in 1970. In each decade, Sandra Ball-Rokeach published a theoretical paper that further developed and elaborated the theory. In Ball-Rokeach and DeFleur 1976, the authors first proposed the theory and explained how MSD relations in a society bring about cognitive, affective, and behavioral effects. In Ball-Rokeach 1985, the author explicates individuals' MSD relations, identifying antecedent variables and proposing typology of six goal-driven dependency relations. Ball-Rokeach 1998 is a third theoretical paper that further specifies the dimensions of MSD relations and highlights the ecological framework of the theory” (Jung, 2018).

“MSD theory focuses on the factors that influence media effects and the context in which the power of media becomes strong or weak. The power of media is affected by whether the media are exclusive and important resources to the particular individual and social organization. MSD theory explains the relationships among individuals, groups, organizations, social systems, and the media system from an ecological and multilevel perspective” (Jung, 2018)

The media dependency theory proposed that there is relationship between media and society in term of cognitive, affective, and behavioural effects because media has influence on individual’s perception which change the behaviour accordingly. This study has taken relationship between Mass media and citizen in term of behavioural effect. Because during pandemic like COVID-19, it has been found that misinformation/fake news is one of the factors that create panic among customer to buy necessary items in bulk due to behavioural change among citizen. This illustrates relationship between Mass media and society in term of behavioural effect which means that media dependency theory still applicable during pandemic like COVID-19. Hence, media dependency theory illustrates relationship between mass media and citizen in term of behavioural effect and the Alternative Hypothesis #1 is give below:

H_{A1}: Mass Media and Panic Buying Behaviour have Correlation with Supply Chain Disruption

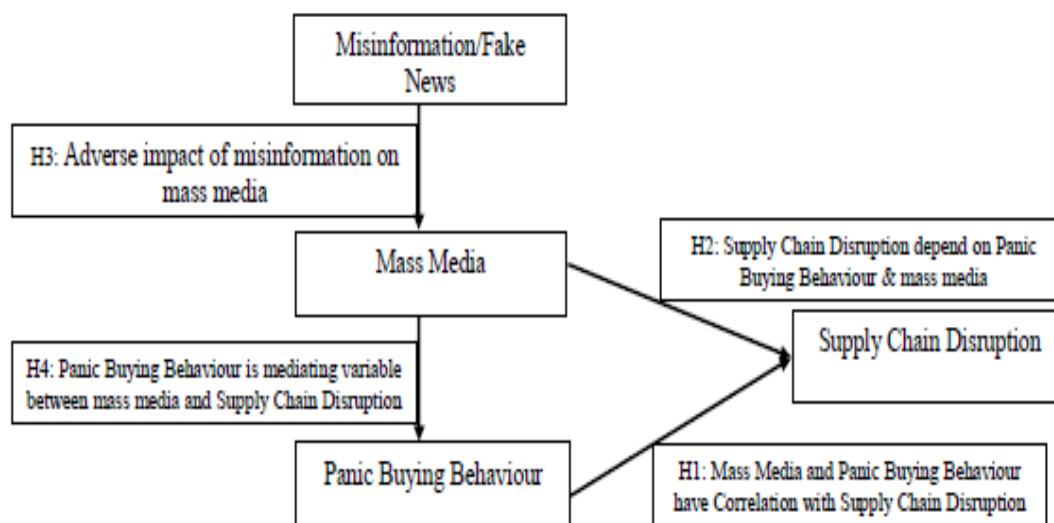


Figure: Research Model

3. **Research Methodology**

Based on hypothesis, proposed concept of this study is that mass media disseminate authentic or misinformation/fake news. The authentic news has positive impact on mass media's credibility and misinformation/fake news have negative impact on mass media's credibility. The negative impact of misinformation/fake news increase panic buying behaviour resultantly supply chain disrupted. The panic buying have indirect effect between mass media and supply chain disruption which create dependency of mass media and panic buying behaviour on supply chain disruption. Hence, there is correlation of mass media and panic buying behaviour with supply chain disruption.

In view of above discussion, mass media, panic buying behaviour and supply chain disruption are three variables have been identified from problem statement, comprehensive literature review and research model. These variables will be measured through World Freedom Press, Food Affordability and Food Availability. These are defined as Mass Media is measured through World Freedom Press and it is defined as the capability of reporters to create and distribute news contents in the public interest without interference of political, economic, legal, and social and in the absence of threats. The reporter without border has determined world freedom press from many years. However, information/fake news also decrease country wise index during COVID-19. The results of these indexes are rank from range of 100 as good performance & 0 as worst. The value range between 100-85 is Good, value range between 85-70 is satisfactory, value range between 70-55 is Problematic, value range between 55-40 difficult and value range between 40-0 very serious (World Press Freedom Index, 2020). The panic buying behaviour is measured through Food Affordability and it is defined as the ability of people to purchase items during occurrence of shocks disruption (Methodology , 2020). The supply chain disruption is measured through Food Availability and it is defined as the national capacity to distribute supply of food system during supply chain disruption (Methodology , 2020). The Economist Impact determine global food index through food affordability, availability, natural resource & resilience & quality food through index. The indexes are rank from range of 100 as good performance & 0 as worst. The value range between 100-80 is Best Performance, value range between 80.01-60 is Good

Performance, value range between 60.01-40 is Moderate Performance, value range between 40.01-24 need performance (Methodology , 2020). These indexes range are also similar with correlation coefficient. The correlation is range between +1 and -1. The value range between ± 0.80 and ± 1.0 called as Very Strong Correlation, value range between ± 0.60 and ± 0.79 called as Strong Correlation, value range between ± 0.40 and ± 0.59 called as Moderate Correlation, value below ± 0.20 and ± 0.39 called as Weak Correlation, the value between ± 0.00 and ± 0.19 called as Very Weak Correlation (Spearman's correlation, n.d.).

The data of World Freedom Press, Food Affordability and Food Availability are divided in to geographical region by Reporter without Border and Economist Impact. Due to this, cluster sampling is applied because cluster sampling is more suitable for geographical region (Methods of sampling from a population, 2017). Hence, this study has divided data into African countries Region, Americas countries Region, East Mediterranean countries Region, Europe countries Region, South East Asian countries Region and Western Pacific countries region for collecting data of 100 countries during pandemic like COVID-19 for year 2020 (Covid19 Infodemics Observatory, 2022). The said data is cross sectional data and this study has selected cross sectional design study because this study represents fake news/misinformation as adverse impact on current population during peak of pandemic like COVID-19 which is signal topic rigidly defined during pandemic like COVID-19 (Thomas., 2021), (What is a cross-sectional study, 2021) (Cherry, 2019), (Simkus, 2021), (Setia, 2016).

After selecting cross sectional study and cluster sampling, the next step is to calculate sample size. This study has calculated sample size from sample size calculator through margin of Error, Confidence Interval, Population Size, Response Distribution, and Recommended Sample Size. This study has selected 5% margin error with 99% with sample size is 100 from total population 113, clusters after fulfilling assumptions of techniques. The minimum sample size for getting good results is 100 samples size (Cridland, 2022), (Sample size calculator, 2004).

The hypothesis 1,2&3 will be tested through mediation analysis to investigation negative effect of misinformation, correlation coefficient & regression of

mass media and panic buying behaviour with supply chain disruption. The assumptions of mediation analysis are same as general linear model i.e linearity, normality, homogeneity of error variance and independence of errors. The assumptions of linear regression are considered because linear regression also used to determine mediating variable through SPSS (Kenny, 2021), (Linear Regression Analysis using SPSS Statistics, 2022). The variables must be measured at interval or ratio scale, must have linear relationship and independence of observations between variables with homoscedasticity pattern, no outlier and normally distributed by checking residuals (errors) of regression line pattern (Linear Regression Analysis, 2022). The world freedom press, food affordability and food availability are three measuring variables of this study at measuring Interval scale with no outlier. The sample sizes are 100 which is same for three measuring variables with normally distributed data and the relationship is linear after checking residual (errors) of regression line. The details are given at annexure-A

To test hypothesis 4, four methods are recommended for determining indirect effect between independent variable and dependent variables. The first is Baron and Kenny an approach to conduct mediation analysis and also called as regression model, second is Sobel test is an approach to conduct mediation analysis for determine indirect path and more suitable for large sample size, third is Boot strap Method is an approach to conduct mediation analysis for resampling non-parametric test and applicable on small sample size where it does not request assumptions of normality, fourth is Structural Equation Modeling is an approach to conduct mediation analysis for complex and multiple mediators (Sidhu, Bhalla, & Zafar, 2021). This study has applied Sobel test that was recommended by Baron and Kenny for determining indirect path. This will be done by calculating product of coefficient i.e ab through standard error. This Sobel test assumes of distributional, asymmetric distribution and normal distribution over large sample size (Sidhu, Bhalla, & Zafar, 2021). The formula is given below (Sidhu, Bhalla, & Zafar, 2021):

$$se_{ab} = \sqrt{a^2 se_b^2 + b^2 se_a^2 + se_a^2 se_b^2}$$

After getting standard error, Z test will be applied to determine significance of total and direct effect and calculate P value variable(Sidhu, Bhalla, & Zafar, 2021):

$$Z = ab / se_{ab}$$

If P value less than 0.5 or z value greater than 1.96, it means there is evidence to support indirect effect between dependent variable and independent variable (Sidhu, Bhalla, & Zafar, 2021). The negative sign means, X (Independent Variable) increased then Y decrease and positive sign means, X (Independent Variable) increased then Y increase (Hayes A. F., 2022).

4. Analysis

This study has applied process procedure for SPSS Version 4.1 written by Andrew F. Hayes, Ph. D(Hayes A. F., 2022). The model 4 is applied by taking dependent variable as supply chain disruption, mass media as independent variable and panic buying behavior as mediating variable with sample size 100 and 99% confidence interval for determining correlation coefficient, regression and negative impact.

Outcome Variable: Supply Chain Disruption							
Model Summary							
Year	R	R-sq	MSE	F	df1	df2	P
2020	.7641	.5839	56.8635	68.0603	2.0000	97.0000	.0000
Model							
Year		Coeff	Se	T	P	LLCI	ULCI
2020	Constant	29.9622	3.6081	8.3042	.0000	20.4820	39.4423
	World Freedom Press	-.0556	.0537	-1.0356	.3030	-.1966	.0854
	Food Affordability (b)	.4697	.0425	11.0516	.0000	.3580	.5813

Table 4.1: Correlation & Regression

Outcome Variable: Supply Chain Disruption							
Model Summary							
Year	R	R-sq	MSE	F	df1	df2	P
2020	.2449	.0600	127.1530	6.2528	1.0000	98.0000	.0141
Model							
Year		Coeff	Se	T	P	LLCI	ULCI
2020	Constant	46.2542	4.9245	9.3927	.0000	33.3178	59.1906
	World Freedom Press (a)	.1837	.0734	2.5006	.0141	-.0093	.3766

Table: Sobel Test

Year	Coeff 'a'	Se Se _a	Coeff 'b'	Se Se _b	Sobot Test =Z Value	P Value	Significance <0.01
	(Hayes A. F., The Simple Mediation Model, 2022)				(Soper, 2022)		(Stangroom, 2022)
2020	.1837	.0734	.4697	.0425	2.44091992	0.007325	The result is significant at p < .01

Table: Sobel Test

This study has determined **Correlation Coefficient** of Mass Media/World Freedom Press and Panic Buying Behavior/Food Affordability with Supply Chain Disruption/Food Availability as outcome variable. There is **Strong Correlation** of Mass Media and Panic Buying Behavior with Supply Chain Disruption at 0.7614 with significant **P value = 0.0000 < 0.01** (Linear Regression Analysis using SPSS Statistics, 2022). The correlation coefficient of 76.14% is interpreted with world freedom press index as satisfactory performance range between 85-70 and global food index as good performance range between 80-60. This illustrates that 76.14% is satisfactory performance. Whereas it is important to mention that misinformation/fake news may reduce correlation from 100% to 76.14% because world freedom press coefficient is negative .0556 due to this the **P value = 0.3030 > 0.01**. In this regard, there is a need for further comparative research on determining negative effect year wise for before and during pandemic like COVID-19 to conclude there is negative effect or not. However, this point is ignored in this study because it required comprehensive research on it. Hence, Alternative Hypothesis#1 is accepted and reject null hypothesis.

This study has determined **Regression** of Mass Media/World Freedom Press and Panic Buying Behavior/Food Affordability with Supply Chain Disruption/Food Availability as outcome variable. The supply chain disruption is 58% depend on Mass Media & Panic Buying Behavior during pandemic with significant **P value = 0.0000 < 0.01** (Linear Regression Analysis using SPSS Statistics, 2022). The regression is 58% is interpreted with world freedom press index as problematic range between 70-55 and global food index as Moderate range between 80-60. Whereas it is important to mention that misinformation/fake news may reduce dependency from 100% to 58% because world freedom press coefficient is negative .0556 due to this the **P value = 0.3030 > 0.01**. In this regard, there is a need for further comparative research on determining negative effect year wise for before and during pandemic like COVID-19 to conclude there is negative effect or not. However, this point is ignored in this study because it required comprehensive research on it. Hence, Alternative Hypothesis#2 is accepted and reject null hypothesis.

This study has determined Regression and coefficient of Mass Media/World Freedom Press and Panic Buying Behavior/Food Affordability on Supply Chain Disruption/Food Availability as outcome variable. The coefficient of Panic Buying Behavior/Food Affordability is positive at 0.4697 with significant **P value = 0.0000 < 0.01** which means that when Panic Buying Behavior/Food Affordability increase then supply chain disruption increase or Panic Buying Behavior/Food Affordability decrease then supply chain disruption/Food Availability decrease. However, the coefficient of Mass Media/World Freedom Press is negative at 0.0556 with no significant **P value = 0.3030 > 0.01** which means that when misinformation/fake news increase then authentic news decreases which have adverse impact on mass media performance, panic buying behaviour and supply chain disruption. In this regard, there is need to further comparative research on determining negative effect year wise for before and during pandemic like COVID-19 to conclude there is negative effect or not. However, this point is ignored in this study because it required comprehensive research on it. Hence, Alternative Hypothesis#3 is accepted and reject null hypothesis.

This study has determined indirect effect through Sobel Test through Mass Media/World Freedom Press, Panic Buying Behaviour/Food Affordability and Supply Chain Disruption/Food. The coefficient of World Freedom Press is denoted as 'a' with coefficient 0.1837, and standard error 0.0734 and Panic Buying Behaviour/Food Affordability is denoted as 'b' with coefficient 0.4697 and standard error 0.0425. After calculating Sobel Test z value = 2.44091992 and **P value = 0.007325 < 0.01**. The P value less than 0.1 or z value greater than 1.96, it means there is evidence to support indirect effect between mass media and supply chain disruption. Hence, Alternative Hypothesis#3 is accepted and reject null hypothesis.

The above results need to be validated for determining that concept accurately measure on quantitative research. The validity is defined as the concept accurately measure on quantitative research (Heale & Twycross, 2015). The Homogeneity, Convergence, Theory Evidence, Criterion Validity are four different ways to be used to demonstrate that a research instrument has constructed validity. (Heale & Twycross,

2015). In this regard, Criterion Validity is most appropriate to validate the research. It is a type of validation that examine the criteria that need to be tested through correlation or regression and need to be correlated between test and criteria on same variables by using Convergent Validity (Heale & Twycross, 2015), (Measurement in Health & Physical Education, 2021). Once research is validity then next step is reliability test of research which determine the consistency of a measure by using Homogeneity (internal consistency) through Cronbach's α (Heale & Twycross, 2015), (Forero, 2014). If the value above the 0.6, it means there is high reliability and acceptable and if the value below above the 0.6, it means there is low reliability (Daud, Khidzir, Ismail, & Abdullah, 2018).

This study has proposed that there is correlation between mass media, panic buying behaviour and supply chain disruption through alternative hypothesis by using media dependency theory. The alternative hypothesis is a criterion which is tested through mediating analysis. The statistical results shows that there is relationship between misinformation/fake news, panic buying behaviour and supply chain disruption at 76.14 % which is acceptable with index criteria of reporter without border and economist impact. Hence, alternative hypothesis accepted. After acceptance of validity test, reliable valid cases are 100 for 3 items and applied Cronbach's Alpha for reliability test the result shows that Cronbach's Alpha is 0.70, Cronbach's, Alpha Based on Standardized Items is 0.727. Hence value 0.70 more than 0.6 which is highly reliable and acceptable.

5. **Discussion/conclusion**

The concept of Fake News/Misinformation is not new and it occurred before pandemic that may affect brand image, increase demand of product and disrupted SC within specific region or country for short period of time. During pandemic, it had been found that millions of people used mass media/digital media/electronic media to get latest information on government's actions for minimizing impact of pandemic and citizen trust on these news because they did not know difference between fake news and real news. Due to this, adverse impact of news was occurred on citizen in form of health care, create panic among citizen and create shortage of necessary items. This recall us media dependency theory of journalism/mass media that proposed relationship between society,

media and its effect on citizen because adverse effect of mass media had been seen on citizen due to fake news/misinformation.

As per literature review it is true that fake news/misinformation increase panic buying behaviour which leads to disrupted supply chain process during pandemic. This illustrate that mass media disseminated authentic or fake/misinformation news content and misinformation/fake was main cause of demand uncertainty through panic buying behaviour and supply chain disruption also affected due to panic buying behaviour. The authentic news or misinformation/fake news belong to mass media/journalism field which is cause to increase panic among customer for demand uncertainty, and supply chain disruption belong to supply chain management field which affected from panic buying behaviour due to demand uncertainty. Hence, both fields are belonging to different discipline and have their own methodology for finding solution of problem.

In the end, it is concluded that the Pandemic like COVID-19 has created an opportunity to solve pandemic issues through interdisciplinary and multidisciplinary way because the pandemic had adverse impact on economy, citizen, business, buying behaviour, supply chain, manufacturing, marketing finance operations. Hence, there is need of cross function research on pandemic problem to identify real world problem, generate hypothesis and draw conclusion for provide interdisciplinary and multidisciplinary solution (Mukherjee, 2021).

Annexure-A

6. Assumptions of Mediating Analysis

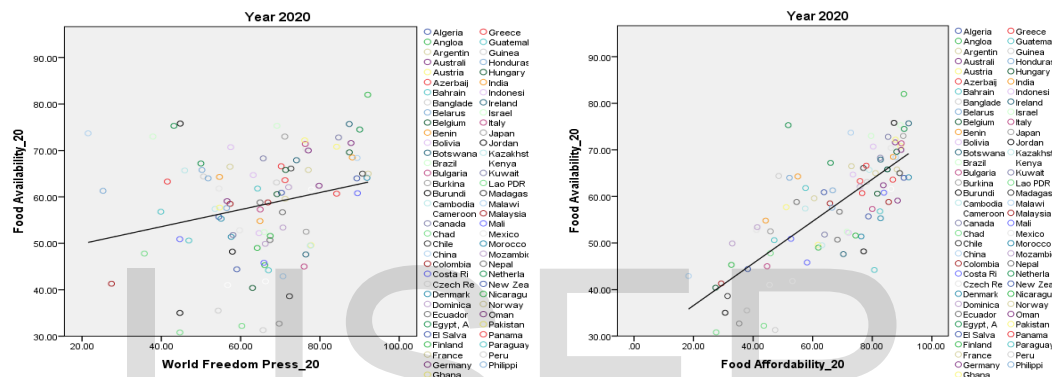


Figure 6: Linear Relationship

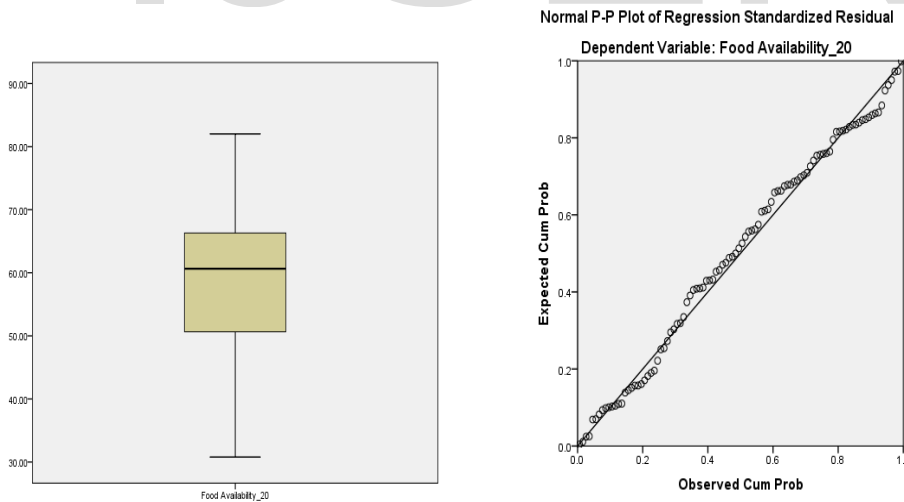


Figure 6: Outlier

Figure 6: Normally Distributed Regression Line Pattern

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Mass Media_20	100	21.52	92.16	65.2674	15.43037
Pani Buy Behavior_20	100	18.30	92.20	67.9370	19.48943

Supply Chain Disruption_20	100	30.80	82.00	58.2410	11.57150
Valid N (listwise)	100				

Figure 6: Homoscedasticity

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.764 ^a	.584	.575	7.54079	2.215
a. Predictors: (Constant), Food Affordability_20, World Freedom Press_20					
b. Dependent Variable: Food Availability_20					

Table: 6: Independence of observation

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