

What is the Consumer's Perception of Metaverse?

Group 8

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Introduction (Summary)

4 Hypotheses Development

Methods

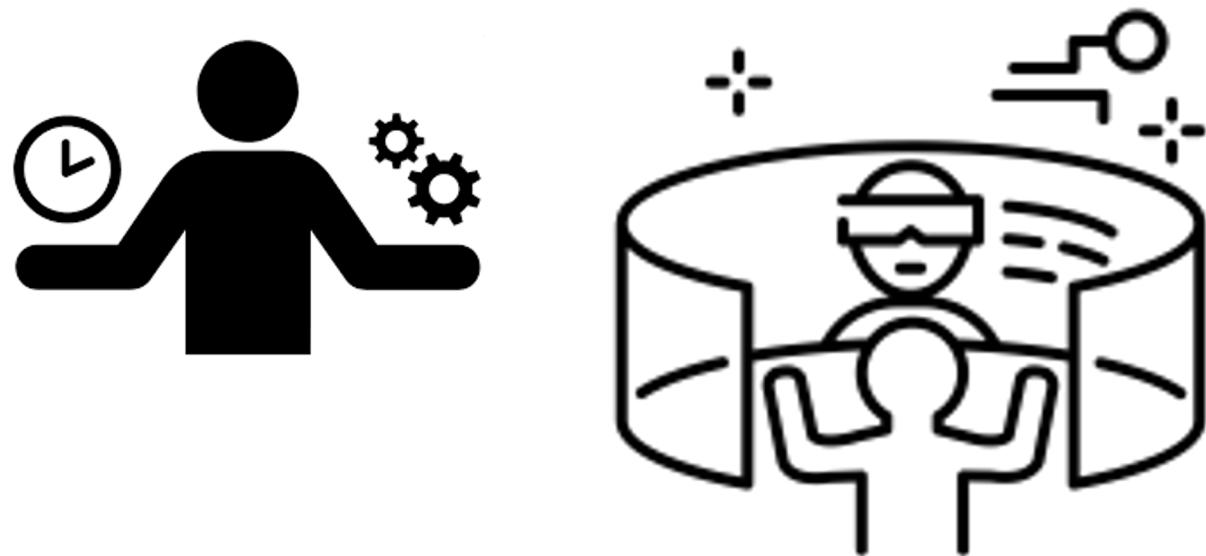
- Participants
- Procedures
- Measures

Hypotheses Testing Results

H1: Supported
H2: Supported
H3: Supported
H4: Supported

Conclusions/Discussions

Introduction



Hypotheses

H1: Effectiveness will positively affect customer's intention to use the Metaverse

H2: Consumers will have more positive perceptions of a brand in the metaverse compared to a brand which does not have a presence in Metaverse.

H3: Perceived resource effectiveness of the metaverse in the education industry will positively affect consumers' intention to use it

H4: The influence of social media helps the Metaverse become more known to the public

METHODS

1) Participants

a) Gender

Statistics

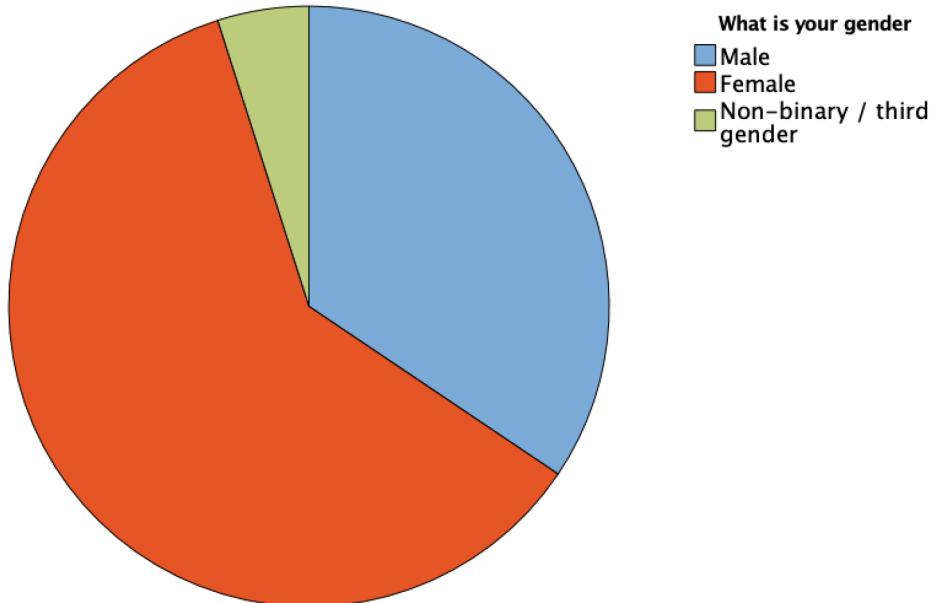
What is your gender

N	Valid	61
	Missing	6

What is your gender

	N	%
Male	21	31.3%
Female	37	55.2%
Non-binary / third gender	3	4.5%
Missing System	6	9.0%

Graph



METHODS

1) Participants

b) Ethnicity

Graph

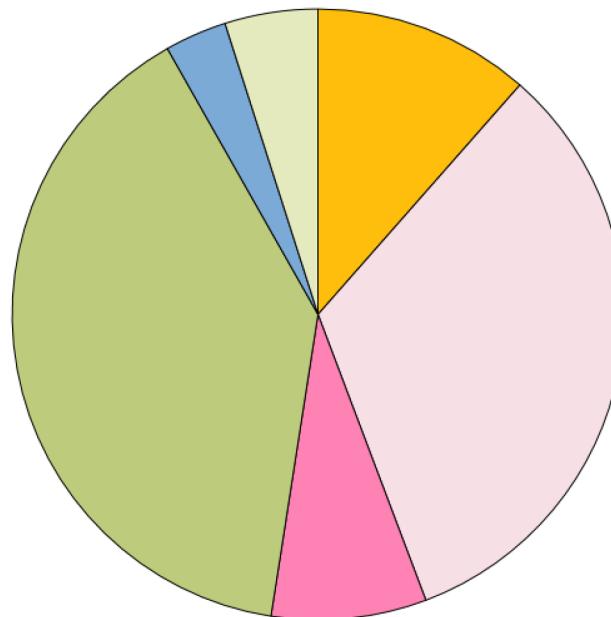
Statistics

What is your ethnicity?

N	Valid	61
	Missing	6

What is your ethnicity?

	N	%
White or Caucasian	7	10.4%
Hispanic or Latino	20	29.9%
Black or African American	5	7.5%
Asian or Pacific Isander	24	35.8%
Multicultural	2	3.0%
Other	3	4.5%
Missing System	6	9.0%

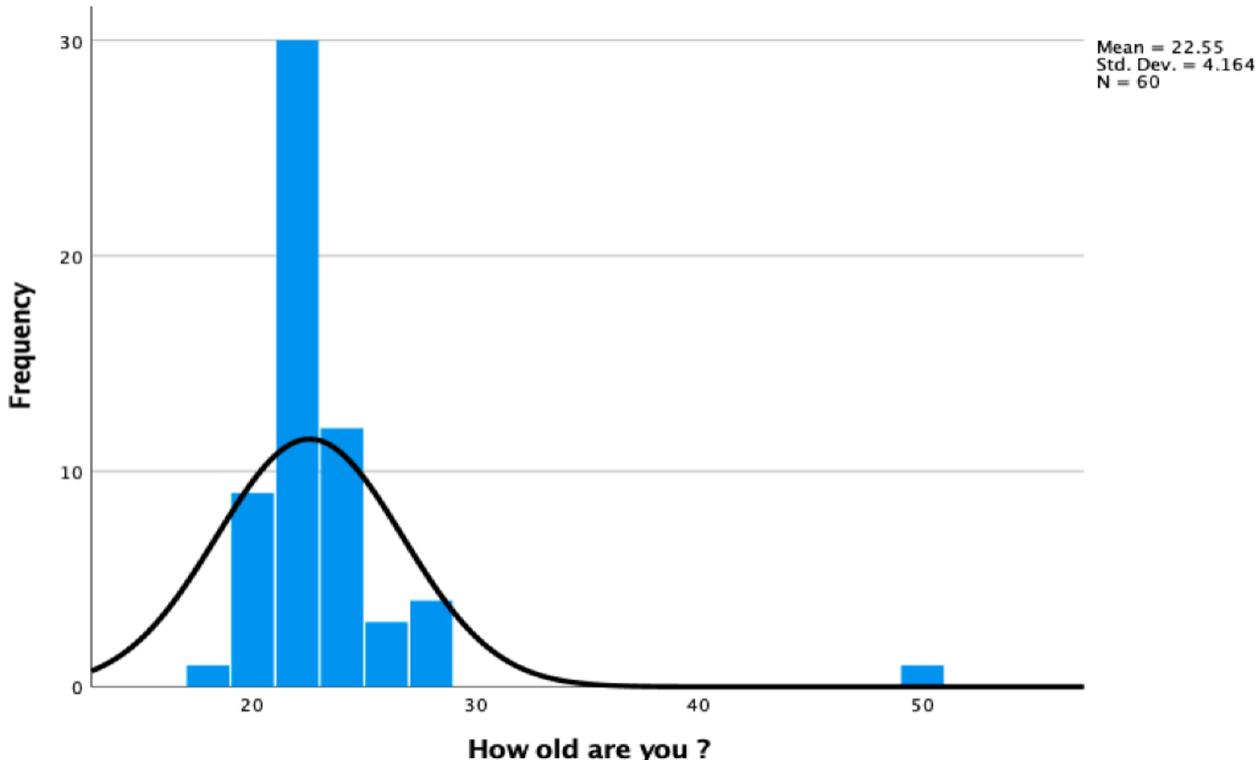


What is your ethnicity?

- White or Caucasian
- Hispanic or Latino
- Black or African American
- Asian or Pacific Isander
- Multicultural
- Other

METHODS

1) Participants c) Age



Descriptives

Descriptive Statistics

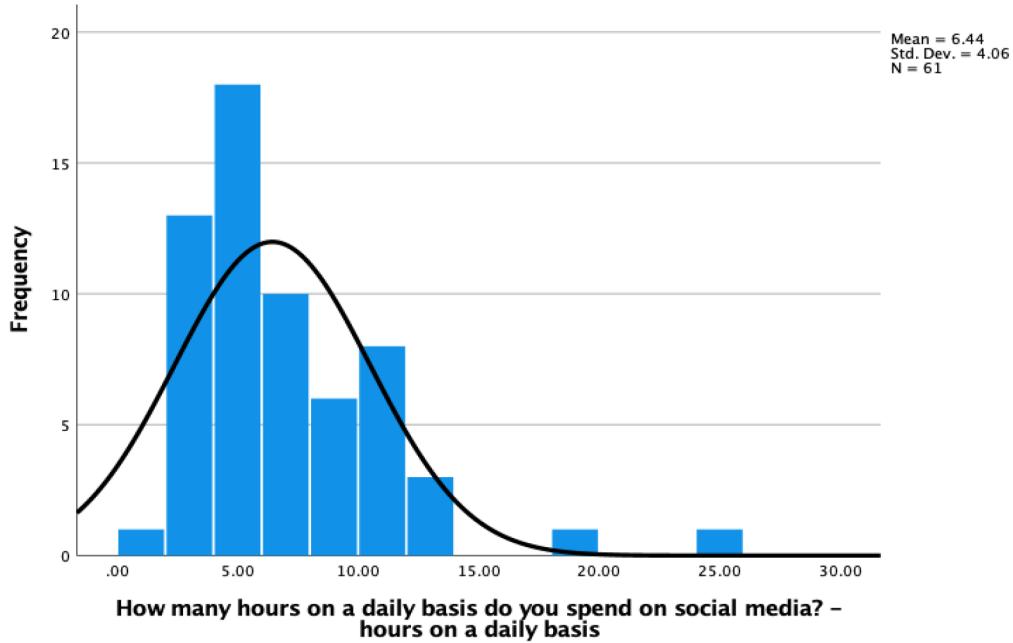
	N	Minimum	Maximum	Mean	Std. Deviation
How old are you ?	60	18	50	22.55	4.164
Valid N (listwise)	60				

METHODS

1) Participants

d) Hours Spending on Social Media

Graph



METHODS

2) Procedures

- Designed Qualtrics questionnaire with “before video”-”after video” questions
- Link shared through series of social media platforms & among inner circles
- Focused on participants residing in the United States
- Data exported through SPSS to further analyze

METHODS

3) Measures

DV “The participants’ familiarity with the Metaverse”

- 3 items - Cronbach's $\alpha = .892$

H1 IV “Perceived effectiveness in the metaverse”

- 3 items - Cronbach's $\alpha = .873$

H2 IV “Usage of metaverse in brands”

- 4 items - T-Test & Paired Samples Q2-1-1 & Q2-4-1

H3 IV “Resource effectiveness of the metaverse (in education)”

- 3 items - Cronbach's $\alpha = .789$

H4 IV “Resource effectiveness of the Metaverse (familiarity with Social Media)”

- 2 items - T-Test & Paired Samples Q3-2-1 & Q3-3-1

Hypothesis Test Result

H1

Effectiveness will positively affect customer's intention to use the Metaverse

Scale: ALL VARIABLES

Case Processing Summary

	N	%
Cases	Valid	62 92.5
	Excluded ^a	5 7.5
Total		67 100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.873	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
[Starting Question] Opinion/Preference regarding Metaverse in general – 2) I would like to see more applications of metaverse in my daily life.	6.19	5.011	.766	.816
[Starting Question] Opinion/Preference regarding Metaverse in general – 3) I think that Metaverse will maximize the communication in virtual reality.	5.66	4.752	.709	.865
[Starting Question] Opinion/Preference regarding Metaverse in general – 4) I would like to use metaverse in the near future	6.02	4.410	.801	.779

Reliability

Scale: ALL VARIABLES

Case Processing Summary

	N	%
Cases	Valid	62 92.5
	Excluded ^a	5 7.5
Total		67 100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.925	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
[Ending Question] Opinion/Preference Regarding Metaverse in general – 2) I would like to see more applications of metaverse in my daily life.	6.68	5.075	.880	.866
[Ending Question] Opinion/Preference Regarding Metaverse in general – 3) I think that Metaverse will maximize the communication in virtual reality.	6.42	6.051	.772	.950
[Ending Question] Opinion/Preference Regarding Metaverse in general – 4) I would like to use metaverse in the near future	6.52	5.237	.899	.850

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.635 ^a	.403	.393	.82110

a. Predictors: (Constant), [Starting Question] Opinion/Preference regarding Metaverse in general – 1) I think metaverse is effective in general

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.297	1	27.297	40.488	<.001 ^b
	Residual	40.452	60	.674		
	Total	67.749	61			

a. Dependent Variable: IV_H1

b. Predictors: (Constant), [Starting Question] Opinion/Preference regarding Metaverse in general – 1) I think metaverse is effective in general

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.760	.364		2.087	.041
	[Starting Question] Opinion/Preference regarding Metaverse in general – 1) I think metaverse is effective in general	.769	.121	.635	6.363	<.001

a. Dependent Variable: IV_H1

Hypothesis Test Result

H2

Consumers will have more positive perceptions of a brand in the metaverse compared to a brand which does not have a presence in Metaverse.

Brands with or without Metaverse

**Pair 1
(Before)**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1) I am familiar with the brands that uses metaverse for their promotion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) I think using metaverse would be effective for company's promotion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) I would be more interested if company/brand uses metaverse for their promotion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Hypothesis Test Result

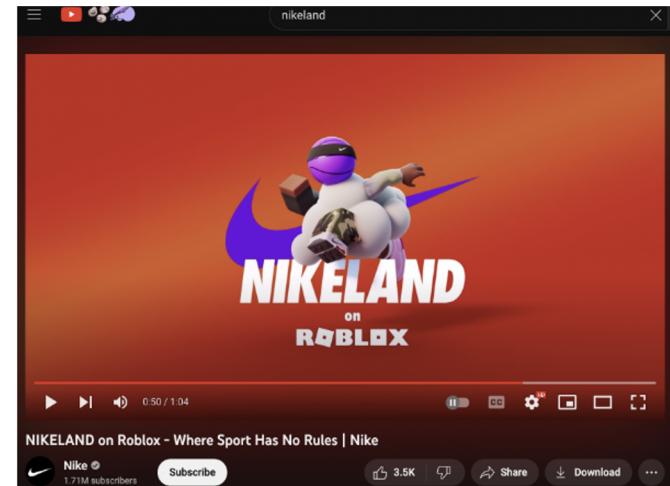
H2

Consumers will have more positive perceptions of a brand in the metaverse compared to a brand which does not have a presence in Metaverse.

[After watching Nikeland Video]

**Pair 2
(After)**

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly Agree
1) After watching this video, I feel like I would like to learn more about the brand's metaverse platform	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) After watching this video, I feel like I would like to learn more about the brand itself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) I think using metaverse would be effective for company's promotion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) I would be more interested if company/brand uses metaverse for their promotion.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



<https://youtu.be/U1yX7awE5P0>

Step 1: Conduct Paired Sample T-Test

Before Watching Video: Q2-1-1, Q2-1-3

After Watching Video: Q2-4-1, Q2-4-3

Step 3: T-Test (Output)

Paired Samples Statistics				
	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Brands with or without Metaverse - 1) I am familiar with the brands that uses metaverse for their promotion.	2.71	62	1.246	.158
[After watching Nikeland Video] - 1) After watching this video, I feel like I would like to learn more about the brand's metaverse platform	3.31	62	1.034	.131
Pair 2 Brands with or without Metaverse - 3) I would be more interested if company/brand uses metaverse for their promotion.	2.61	62	1.092	.139
[After watching Nikeland Video] - 3) I think using metaverse would be effective for company's promotion	3.53	62	1.097	.139

Paired Samples Correlations					
	N	Correlation	Significance One-Sided p	Two-Sided p	
Pair 1 Brands with or without Metaverse - 1) I am familiar with the brands that uses metaverse for their promotion. & [After watching Nikeland Video] - 1) After watching this video, I feel like I would like to learn more about the brand's metaverse platform	62	-.184	.076	.152	
Pair 2 Brands with or without Metaverse - 3) I would be more interested if company/brand uses metaverse for their promotion. & [After watching Nikeland Video] - 3) I think using metaverse would be effective for company's promotion	62	.572	<.001	<.001	

Step 2: SPSS Procedure

Analyze -> Compare means -> Paired-Samples T-Test -> move the variables “Q2-1-1, Q2-4-1” and “Q2-1-3, Q2-4-3” one by one into the “Paired Variables” box → “OK.”

	Paired Samples Test						Significance	
	Paired Differences			95% Confidence Interval of the Difference				
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1 Brands with or without Metaverse - 1) I am familiar with the brands that uses metaverse for their promotion. & [After watching Nikeland Video] - 1) After watching this video, I feel like I would like to learn more about the brand's metaverse platform	-.597	1.760	.223	-1.044	-.15	-2.670	61 .005 .01	
Pair 2 Brands with or without Metaverse - 3) I would be more interested if company/brand uses metaverse for their promotion. & [After watching Nikeland Video] - 3) I think using metaverse would be effective for company's promotion	-.919	1.013	.129	-1.177	-.66	-7.146	61 <.001 <.00	

H2 is supported

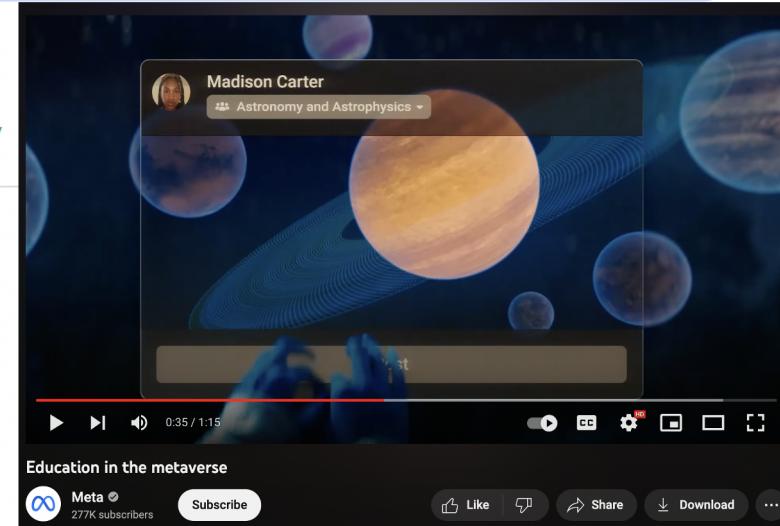
Hypothesis Test Result

H3

Perceived resource effectiveness of the metaverse in the education industry will positively affect consumers' intention to use it

Opinion/Preference about metaverse in Education Industry

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1) I am familiar with the metaverse in education industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2) Education using metaverse seems more interesting than the one doesn't	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3) I think the application of metaverse in education industry would maximize the effectiveness of education.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4) I would choose education using metaverse platform over the one without it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



<https://youtu.be/KLOcj5qvOio>

Step 1. Test Reliability

Reliability Statistics

Cronbach's Alpha	N of Items
.789	3

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
[After watching the "Education in Metaverse" youtube video] – 1) I am familiar with the metaverse in education	6.92	3.715	.498	.849
[After watching the "Education in Metaverse" youtube video] – 2) Education using metaverse seems more interesting than the one doesn't	6.55	3.235	.701	.636
[After watching the "Education in Metaverse" youtube video] – 3) I think the application of metaverse in education industry would maximize the effectiveness of education.	6.66	3.146	.701	.633

Step 2. Create New variable

h3_iv

$$= (Q3-3-2 + Q3-3-3) / 2$$

Step 3. Simple Linear Regression

IV(h3_iv) & DV(Q3-3-4)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
		.560	.552	
a. Predictors: (Constant), h3_iv				.785

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
		Regression				
1	Residual	36.970	60	.616		
	Total	83.935	61			

a. Dependent Variable: [After watching the "Education in Metaverse" youtube video] – 4) I would choose education using metaverse platform over the one without it.

b. Predictors: (Constant), h3_iv

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	-.118	.374	-.315	.754
	h3_iv	.911	.104	.748	8.731 <.001

a. Dependent Variable: [After watching the "Education in Metaverse" youtube video] – 4) I would choose education using metaverse platform over the one without it.

Therefore, H3 was supported

Hypothesis Test Result

H4

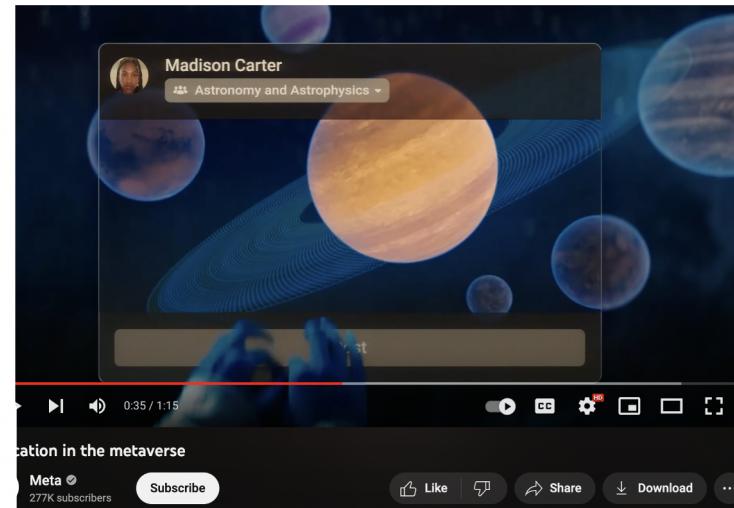
The influence of social media helps the Metaverse become more known and familiar to the public

Opinion/Preference about metaverse in Education Industry

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1) I am familiar with the metaverse in education industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

After Watching the 'Education in the metaverse' video

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
1) I am familiar with the metaverse in education industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



H4

Step 1: Conduct Paired Sample T-Test:

Before Watching Video: Q3-2-1

After Watching Video: Q3-3-1

T-Test

Paired Samples Statistics

	Mean	N	Std. Deviation	Std. Error Mean
Pair 1 Opinion/Preference about metaverse in Education Industry – 1) I am familiar with the metaverse in education industry	2.15	62	1.213	.154
[After watching the "Education in Metaverse" youtube video] – 1) I am familiar with the metaverse in education industry	3.15	62	1.053	.134

Evaluate means from before and after

How To Input Q's in SPSS:

Open Dataset -> Analyze Data -> Compare Means ->
Move Q3-2-1 to *Pair 1 Variable 1* -> Move Q3-3-1 to
Pair 1 Variable 2 -> OK

Step 2. Evaluate Paired Sample Test

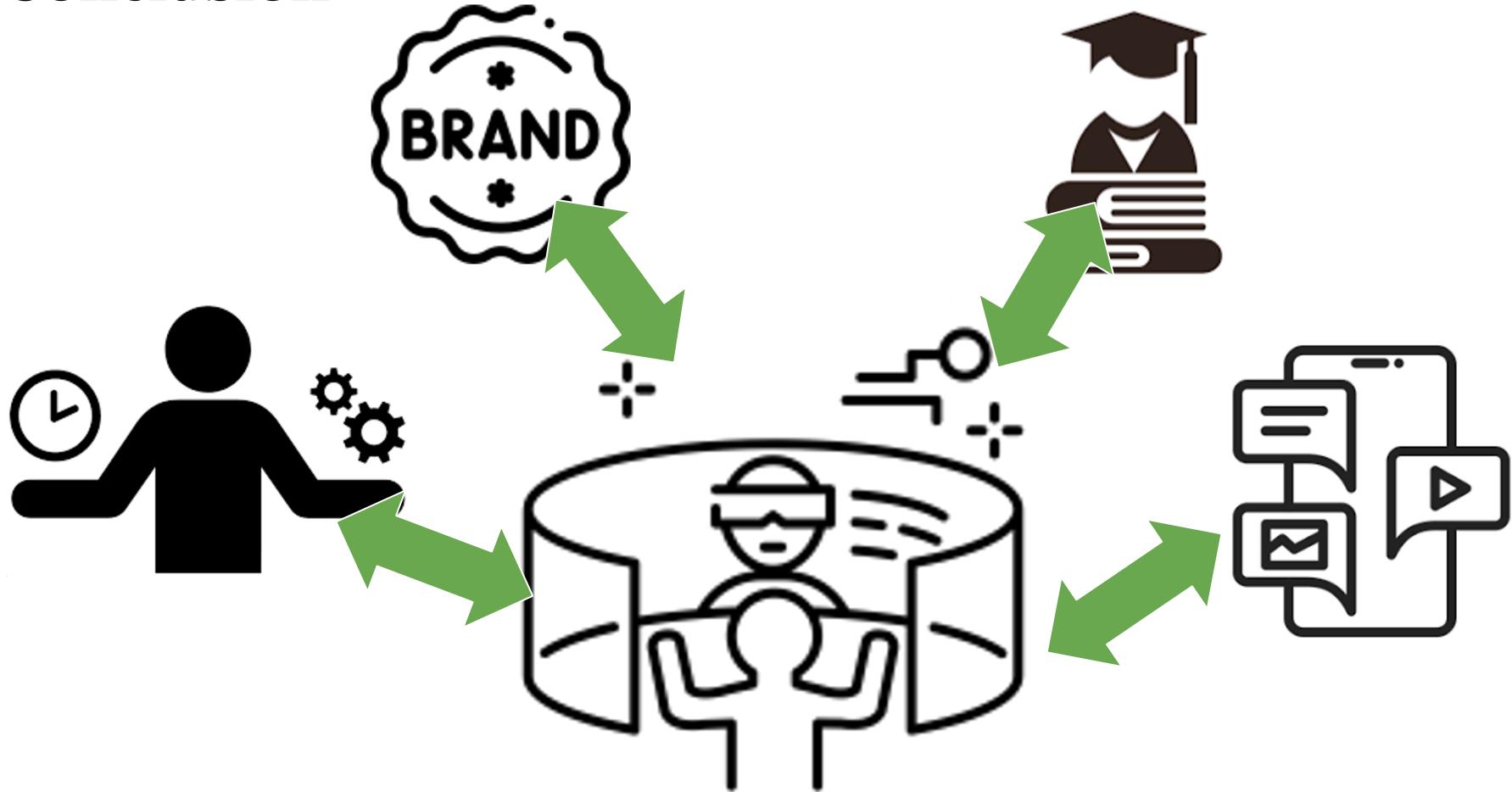
	Paired Differences	95% Confidence Interval of the Difference					t	df	Significance	
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			One-Sided p	Two-Sided p
Pair 1 Opinion/Preference about metaverse in Education Industry – 1) I am familiar with the metaverse in education industry	-1.000	1.293	.164	-1.328	-.672	-6.089	61	<.001	<.001	<.001

Paired Samples Correlations

	N	Correlation	One-Sided p	Significance
Pair 1 Opinion/Preference about metaverse in Education Industry – 1) I am familiar with the metaverse in education industry & [After watching the "Education in Metaverse" youtube video] – 1) I am familiar with the metaverse in education industry	62	.355	.002	.005

Therefore, H4 was supported

Conclusion



Thank you