## CONSUMERS' PERCEPTIONS OF QR CODES

## Nathan Richard and Patrick Tobin

# Southern New Hampshire University

#### Abstract

This study was conducted to further marketers' understanding of consumers' perceptions of QR codes. Consumers' Perceptions of QR Codes uses quantitative and qualitative research to determine the appropriate findings that resulted from the study. There were three instruments utilized within this study to obtain primary data pertaining to consumers' perceptions of QR codes; an experiment, a focus group, and a survey. The experiment was constructed to analyze the relationship between consumers' perceptions and the amount of change in the composition of a physical QR code. The focus group contained five members from Southern New Hampshire University. The group's discussion was structured and mediated to extract data pertaining to consumers' perceptions of QR codes, consumer usability of QR codes, and the amount of value QR codes add/offer to consumers. The survey, containing 21 questions, was structured to evaluate the same parameters learned from the focus group discussions. Being that this study was an exploratory study, further research is expected to be conducted beyond the conclusions of this research. More specifically, further research should be conducted in relation to why consumers perceive there to be benefits to scanning a QR code; yet the majority of respondents indicated that they scan few QR codes. Further research should help clarify the cognitive dissonance experienced by consumers when interacting with QR codes.

#### Introduction

Online marketing, particularly mobile online marketing, is gaining greater attention and recognition by marketers throughout the United States (Sago, 2011). A QR code is a matrix bar code that is read by photographing it with the camera of a smartphone or other mobile device that is equipped with a bar-code reader (Dictionary.com). These codes allow consumers to obtain or be directed to a particular source or piece of online content by scanning the code with their mobile device.

Previous research concluded that the perceptual factors are the strongest predictors of consumers behavioral responses (Jong-Hyuok, 2012). Other studies have revealed that consumers identify perceptual factors, such as perceived ease of use and benefit, as the major factors influencing the appeal/desirability of QR code usage (Okazaki, 2012). Because perception can vary from place to place and person to person, cultural and geographic differences have been found to affect different consumers perceptions (Sago, 2011). The most noticeable difference is found between consumers in the United States and Japan (Sago, 2011). Consumers in Japan have widely adopted QR codes and they have become integrated into their daily lives (Sago, 2011). Lastly, previous research determined that the type of product that is associated with a QR code will influence the expected usage rate by consumers (Narang, 2012). The degree of involvement (consumers' assigned amount of interaction or attentiveness with certain products) relates to consumers desirability to scan QR codes; QR codes associated with high involvement products have a greater probability of being scanned (Narang, 2012).

This study's objective was to analyze consumers' perceptions of QR codes and their current knowledge of them. This study took a more in-depth and exploratory look at consumers' perceptions of QR codes and how consumers respond to them.

### Method

#### Participants

- Over 250 Volunteers from the SNHU Community
- Utilized a convenient sample
- Volunteers ages 18+

#### Materials

- PowerPoint presentation with a paper answer sheet
- Qualtrics Survey

#### Procedures

#### The Experiment:

- 200 Participants
- Two images side by side per slide for comparison
- Respondents observed each slide for 1 second
- To indicate their answer, they would circle "Exact Same", "Similar", "Slightly Different", or "Very Different" based on their perception Focus Group:
- 5 Participants were selected to participate
- Structured to find in-depth information about consumers' perceptions of QR codes

#### Survey:

- 81 Participants
- Designed to analyze validity of data gathered from the focus group

For More Information
Download a QR Code
Scanner







#### Discussion

#### Experiment:

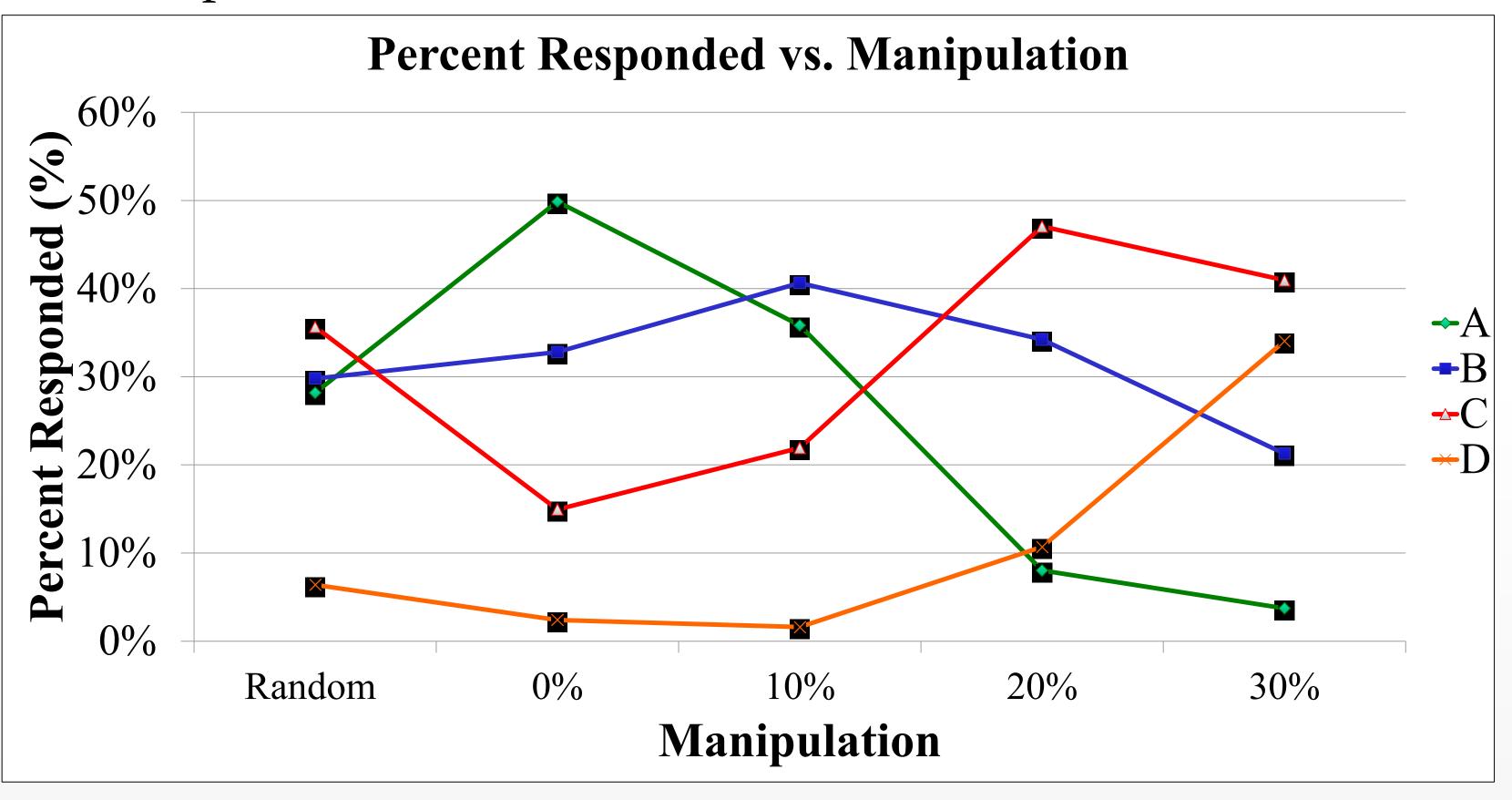
- The results of the experiment show that consumers (in the environment of the experiment) generally notice differences within the composition of the QR codes.
- Different amounts of change yielded different significantly impacted responses.
- No other experiments have been conducted in this way. However, the respondents that participated in this study's focus group identified that the term "QR code" was a general/umbrella term.
- Using the results from this experiment, marketers can identify that differentiation is necessary for effective QR code marketing.

#### Focus Group:

- Context and content around QR code matters.
- Consumers need directions on how to scan the QR code.
- Consumers need more information about where the code links to.
- QR codes can be a great way for consumers to be directed to more information. Survey:
- Consumers are conflicted between thoughts and actions.
- The industry the company is in effects the likelihood of the code being scanned.
- There are perceived benefits to scanning QR codes.
- Research by the Mobile Marketing Association shows that QR codes associated with high involvement products are more likely to be scanned.

#### Results

#### The Experiment:



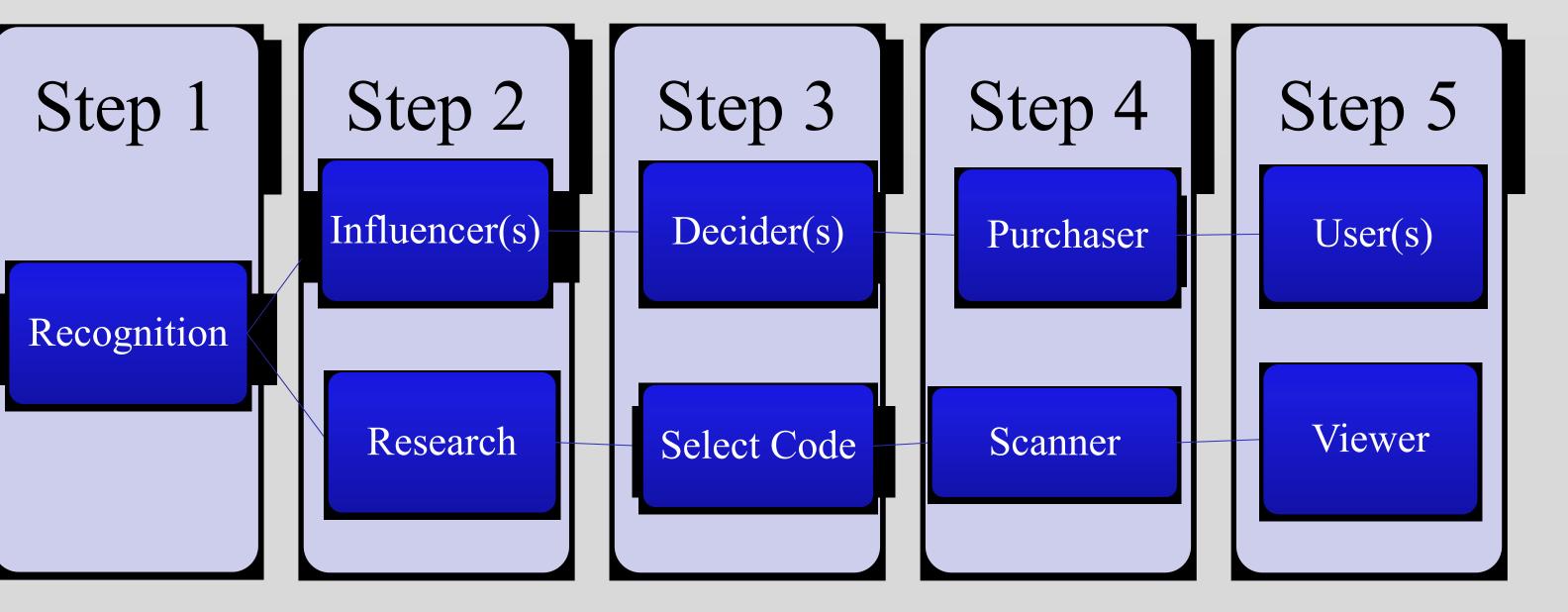
#### Table of p Values for One-Way ANOVA Test

Answers →  Manipulations ↓	A (Exact Same)	B (Similar)	C (Slightly Different)	D (Very Different)
Randomly Selected Code	0.961	0.759	<u>0.668</u>	0.812
0% Change	<u>0.057</u>	0.843	<u>0.058</u>	0.375
10% Change	0.760	<u>0.150</u>	0.622	0.545
20% Change	0.290	0.740	<u>0.182</u>	0.935
30% Change	0.184	<u>0.051</u>	0.416	<u>0.002</u>

#### Survey:

- 78% of respondents know what QR codes are
- 92% know how to scan them
- 82% are more likely to scan if they know where the code will take them
- 51% scanned QR codes once in past 6 months
- 7% have scanned 6 or more in past 6 months
- 52% DO NOT want marketer's to use QR codes in their communications
- 77% of respondents perceive there to be benefits to scanning a QR code

## Steps in the Buying Process Related to QR Codes



References

Dictionary.com, (2014). *QR Codes.* Retrieved From: http://dictionary.reference.com/browse/qr+codes?s=t Jong-Hyuok, J., Somerstein, R., & Eun Seon, K. (2012). SHOULD I SCAN OR SHOULD I GO?: YOUNG CONSUMERS'

MOTIVATIONS FOR SCANNING QR CODE ADVERTISING. *International Journal Of Mobile Marketing*, 7(3), 25-37. Narang, S., Jain, V., & Roy, S. (2012). EFFECT OF QR CODES ON CONSUMER ATTITUDES. *International Journal Of Mobile Marketing*, 7(2), 52-64.

Okazaki, S., Li, H., & Hirose, M. (2012). Benchmarking the Use of QR Code in Mobile Promotion. *Journal Of Advertising Research*, 52(1), 102-117. doi:10.2501/JAR-52-1-1021117

Sago, B. (2011). The Usage Level and Effectiveness of Quick Response (QR) Codes for Integrated Marketing Communication Purposes among College Students. *International Journal Of Integrated Marketing Communications*, 3(2), 7-17.