ABSTRACT
I study technologies developed to encourage the public to contribute to the public good. However, few of these systems are well accepted and adopted by public. Using a mixed methods approach grounded on technology acceptance theoretical frameworks, my dissertation explores why people are motivated to take participatory actions to be more involved and engaged within their communities? By using an example of Balagh Tejary, a public participation mobile application used to report merchant violations with the Ministry of Commerce in Saudi Arabia I aim to explore the motivational factors underpinning the acceptance of public participation systems in public good domain.

General Terms: Management, Human Factors, Theory

Keywords: Community; Technology Mediated Social Participation; Technology Acceptance; Motivations; Public Good

1. RESEARCH CONTEXT AND MOTIVATION
Despite the familiar concept of public participation, the reality of attracting sustained public participation is difficult. Technology is often seen as part of the solution. However, technology itself may in fact exacerbate the issue. In my dissertation, I focus on the Technology Mediated Social Participation (TMSP) systems. I aim to study the technologies that facilitate public and social collaborative participation. Specifically, the user acceptance and adoption of these technologies.

The success of TMSP systems relies on the volume of participation activities. They have to have a large number of collaborators and contributors or what Computer Supported Cooperative Work (CSCW) researchers have called "Critical Mass". The lack of critical mass may be the primary reason of any public participation initiative failure; regardless of how extensive an investment has been made.

The public first needs to accept the technology before it can adopt and use it. Hence, there is the problem of how to make TMSP systems socially usable and acceptable. How can we motivate people to use these applications to contribute knowledge for the public good? We may need to focus not only on how to motivate the public to participate, but also on how to make the participation technology channels acceptable. Traditional system usability has focused on creating efficient interfaces and systems that are simple. Although this is very important for design space, just because a system is easy to use, does not mean it will engage users or attract them to use it.

Another problem in the TMSP research area, is that researchers have done many studies on the technical side of the TMSP spectrum while downplaying the social side. Developing applications that are very usable will not guarantee success for these systems. TMSP system designers should pay attention to social needs and a wider set of factors that would attract critical mass to use them.

As Ben Shneiderman notes, "understanding how to increase the motivations for participation is a deep science question that will occupy researchers for many decades." [6] The fundamental activity of users in TMSP is participation; which begins with motivation and the adoption of technology. Despite the fact, that most of TMSP systems fail due to the lack of critical mass, the exponential growth of participatory systems is obvious; less obvious are the concrete factors which lead individuals to adopt and continue using a given technical system that allows users to participate with each other especially in non Western countries.

By using an example of Balagh Tejary, a public participation mobile application used to report merchant violations with the Ministry of Commerce in Saudi Arabia, I aim to explore the motivational factors underpinning the public participation.

2. RELATED LITERATURE
Public participation for the public good can be demonstrated in several instances such as community policing and crime prevention [1] and neighborhood maintenance [2]. Public engagement and participation is still an evolving field of research which can be difficult to classify. While there are many digital government initiatives to engage citizenry, most research on the topic has been done with citizen science which is a very different kind of public participation. Several researchers have investigated the motivations behind public participation in different domains such as online communities [4] and citizen science [5], but motivation behaviors are complex and not always obvious. Participation for public good is at the heart of community engagement, so it is crucial to understand how can we promote public to take part in such activities? What are the barriers of public engagement systems by understanding the drivers for involvement? Most importantly is to understand the factors that affect the acceptance of the participation systems.

3. RESEARCH QUESTIONS
The general research question of interest is: Why people are motivated (or not motivated) to take participatory actions to be more
involved and engaged within their communities? This general question has three sub research questions as follow:

RQ 1: What are the key factors that influence the acceptance and use of TMSP systems?
RQ 2: How are different motivational factors associated with the intention of using the TMSP systems?
RQ 3: Given the factors identified in answering the first two research questions, what are the design guidelines for TMSP systems to motivate user acceptance?

4. RESEARCH APPROACH AND METHODS
The research design will be a two-phase, mixed methods design that utilize a case study approach. The design is adapted from the “sequential exploratory design” described by Creswell[7] (collection and analysis of qualitative data followed by the collection and analysis of quantitative data) (see Figure 1) as follows:

Initially we conducted a pilot study using focus groups in the USA to collect initial qualitative data.

The first phase explores motivational factors through conducting individual and/or group interviews about public perceptions, attitudes, and opinions regarding TMSP systems. This is to identify motivational factors that may affect acceptance. These factors will be compared to the list of factors identified from the literature.

The second phase of this study explores the relationships between the factors and public’s intention and/or action by using a survey to gather data about their motivations for use (or non use) of TMSP systems in addition to their perceptions of engagement for public good and their demographic information. This survey instrument will be designed based on the results acquired from phase one.

The interview guide will include three major sets of questions: a) general questions about the people's background, b) questions about the adoption of various participation and engagement tools, and c) specific questions about the motivation and barriers of participation tools that exist in Saudi Arabia. The questions are based mainly on the themes grounded in the literature, theoretical foundations, and models of technology acceptance. The analysis will also take an analytic induction approach to uncover new themes that emerge from the data that have not been previously developed in the literature.

5. RESEARCH CURRENT STATUS AND RESULTS
I have already completed the pilot study and half of the phase one research activities. By conducting four focus groups in the US and Saudi Arabia, I collected qualitative data which will inform the design of my survey instrument. (I am scheduled to defend my dissertation proposal in the Fall of 2014.)

The initial results have already successfully identified interesting themes and motivation factors for TMSP systems acceptance. For example, beside the well identified factors of technology acceptance model (Usefulness and Ease of Use) I found that applying Expectancy Theory concepts to public participation technologies may increase the acceptance of the TMSP systems as the public would be more eager to participate when they expect a positive outcome from their engagement. Data collected indicated that the public are more willing to accept these systems if they are equipped with a tracking functionality that allow participants to follow the progress of a submitted report. Moreover, the data showed some factors related to Community Sense theory as participants reported welling to accept these systems and sustain use them for reasons such as community membership and having influence on someone's own community. Although this initial data analysis is still undergoing, it seems that our model will consist of three core categories of factors: Technical, Social-Contextual and Organizational.

6. EXPECTED CONTRIBUTION
My dissertation's findings should have theoretical and practical contributions. A theoretical basis for TMSP can explain why some systems succeed and others fail, provide a basis for simulating activity in existing TMSP systems, and aid in predicting whether a new TMSP system will succeed [3]. I expect to construct a model for TMSP systems acceptance for public good. I also anticipate that my dissertation will provide a guideline for TMSP systems designers to implement features that encourage the acceptance of these systems.

7. REFERENCES