















The third example of stakeholder's valuation framing exercise is high street shops or traditional retailers [25]. Table 4 illustrates the valuation of high street shops or traditional retailers:

Table 4: High street shops valuation framing.

	High street retailers
Subsistence	Loss of clients means loss of business
Classification	No significant change
Territoriality	e-shops is more convenient than visiting shops especially within existing environmental and cultural constrains for female consumers
Temporality	Restrictions of opening times and closing for prayers make it easier for consumers to shop online
Learning	Once female consumers become confident in using e-shops they will rarely visit h.s. shops again
Play	If e-shops provide sufficient amusement and fun opportunities, female consumers will not look for fun else where
Protection	Once online shopping conveys safe, secure, confidential, and private shopping process. Female consumers will no longer need to visit h.s.shops. e-shopping generally endanger h.s.shops
Exploitation	h.s.shops can open online shops as extensions of their traditional shops and save their clients
Association	Successful business in Saudi Arabia is based on family bonds and social relations
Interaction	Cultural issues of interaction in h.s.shops and the fact that sales people are males creates constraints in shopping which can be replaced sufficiently with effective e-shops designs

The fourth example of stakeholder's valuation framing exercise is the bystander or male-guardian in this context [25]. Table 5 illustrates the valuation of male guardians:

Table 5: Male-guardian's valuation framing.

	Male-guardian
Subsistence	From a provider perspective; easier way to spend more money
Classification	Satisfy gender-segregated society norms
Territoriality	Convenience as no need to take female to h.s.shops and save long waiting hours
Temporality	Convenience as no waiting for opening times is required
Learning	As long as it is easy and reliable for female consumers to use them
Play	Joyful websites encourages using it. keeping in mind socio-cultural norms

	of joy within a society
Protection	Ensure that it does not contain any inappropriate content, safe, secure, confidential, and private.
Exploitation	Limited need to visit traditional shops
Association	Ensure that it does not endanger family bonds and enable group shopping or family e-shopping facilities
Interaction	Ensure that it does not endanger socio-cultural interaction norms within a society

Each category in the valuation framing is treated as a separate building block, capable of being analysed in its own terms without reference to the other systems. Distinct definitions of each category have been made which will help a user of the method in constructing a proper description of the various types of valuations.

#### 4. Discussion

Requirements engineering is a key activity in the development of software systems and is concerned with the identification of the goals of the stakeholders and their elaboration into precise statements of desired services and behaviour. As studies show, majority of the software development projects fail because of lack of understanding the requirements clearly and non-involvement of key stakeholders. For the successful software product to be developed it is important to identify relevant stakeholders and involve them during requirements elicitation process [1;2].

From the stakeholders' Identification we can see the female consumers' decision of adopting online shopping applications is influenced by all other stakeholders. Starting from the legislators, online retailers who are targeting the Saudi Arabian market should become aware of the legal and social rules that enable the accessibility of their websites through the legislators' filtration to the Saudi Arabian market. Also the male guardian's perception of online shopping applications - whether he accepts the adoption or rejects it - will influence her decision. Also, the facilities provided by the financial institutions will affect the female consumers' decision (as different payment options as mentioned earlier people in Saudi Arabia are not encouraged to use credit cards due to religious reasons which indicates the need to provide other payment options by financial institutions). Also, the sufficiency of the shipment and delivery companies has a major influence on the female consumers' decision in terms of their commitment to deliver the items punctually, conditions of items...etc. The online retailers' website presentation and services can be categorised as the most important factor in the online shopping mechanism as it facilitates the environment which

enables the female consumer to carry out the whole process of purchasing online. It provides the look, feel, and presence of shopping without the physical need to carry out the action. It is also essential to mention the role of Internet service providers and the quality of the connection they provide which makes the online shopping process possible. The high street shops are competitors of online retailers in terms of services, prices, offers, display, quality, services etc. The paper was based on existing literature and observation of the author. It provides an analysis of the people who are involved in the process of female consumers' online shopping and the impact each one of them has on online female consumers were performed.

This paper has clarified that multicultural stakeholders will more likely have different perspectives on the features, functionality, and design decisions of a product. Also the female consumers' decision of adopting online shopping applications is influenced by stakeholders' perspectives of these products, for instance the male guardian's perception of online shopping - whether positive or negative - will more likely influence her decision. Also, the facilities provided by the financial institutions will affect the female consumers' decision (as in providing other payment options than credit cards payment since people in Saudi Arabia are not encouraged to use credit cards due to religious reasons which prohibits them to get involved in financial transactions that include interest fees. this indicates the need to provide other payment options by financial institutions). Also, the sufficiency of the shipment and delivery companies has a major influence on the female consumers' decision in terms of their commitment to deliver the items punctually, conditions of items...etc.

The online retailers' website presentation and services can be categorised as the most important factor in the online shopping mechanism as it facilitates the environment which enables the female consumer to carry out the whole process of purchasing online. It provides the look, feel, and presence of shopping without the physical need to carry out the action. It is also essential to mention the role of Internet service providers and the quality of the connection they provide which is reflected on the online shopping process sufficiency and accuracy. While the high street shops are competitors of online retailers in terms of services, prices, offers, display, quality, services etc. They will probably be influenced negatively by the introduction of such a product.

## 5. Conclusion

Finding the right stakeholders is essential to proceed with more detailed work such as modelling the context, partitioning the problem, defining the

requirements and building the system according to whatever approach we are using.

The adoption of online shopping can overpass some constraints faced by female consumers in traditional shopping in Saudi Arabia. However, online shopping will only be successful if the influence of the Saudi Arabian stakeholders is taken into account. This paper analysed the stakeholders who are involved in the process of female consumers' online shopping using Organisational Semiotics social-technical approach. Stakeholders' analysis enables designers to point out some requirements that should be considered while designing online shopping applications targeting the Saudi female market.

This paper provides analysis of the cultural impact on the responses of each of the stakeholders involved in the development of online shopping applications targeting female consumers in Saudi Arabia. The information provided in this paper will enable analysts and designers to point out some requirements that should be considered while designing online shopping applications targeting the Saudi female market.

According to the theoretical analysis implemented in the paper it is found that introducing e-commerce applications to the Saudi female market is not enough for her to adopt and use these applications. This decision is made in cooperation with other stakeholders after examining the suitability if these applications to the cultural and moral beliefs of the region. Failing to consider these cultural influences in the product preparation will probably result in failing the adoption and use of these applications.

## 6. Future Research Direction

The main purpose for applying both methods (Stakeholders' identification and valuation framing) in this research is to know who the key stakeholders in this multicultural environment are. This information will help analysts to clearly highlight the main stakeholders who will contact for data collection and validation of the design solutions. In this context it is clearly that we need to bear in mind three main stakeholders: Saudi female consumers, male guardians, and the government as the legislators. Meaning, we will be mainly in touch with these three stakeholders throughout the data collection and the validation phases of this research. Future work in this regard aims to implement empirical investigations towards the influence of cultural factors on the design and adoption of e-commerce applications in Saudi Arabia. This requires modelling the social reality of e-commerce in Saudi Arabia as well as the mental models of the users (Saudi female consumers). Also identifying the socio-cultural norms and incorporating them in the

design guidelines of these applications via implementing the Semantic Analysis Method (SAM) and Norm Analysis Method (NAM) offered by the organisational semiotics analysis discipline.

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