



CATEGORIZATION OF THE REQUIREMENTS OF SOCIAL COMMERCE

PLATFORMS

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Agenda

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1. INTRODUCTION

- ◇ S-commerce (Social Commerce) is a new way of doing commerce in a collaborative and participative way, involving interactions among all the actors of the value chain[2].
- ◇ S-commerce aims at enhancing enterprise openness to enable actors' participation and collaboration, in order to achieve greater economic value to the whole value chain.
- ◇ More and more businesses and enterprises are leveraging their portals to s-commerce platforms, to enforce participation and collaboration, with the aim to add value to the architecture of the products/services/Business processes. However, few enterprises developed effective s-commerce platforms because there is a lack of a framework that shapes the social requirements both the front-end and the back-end requirements of such platforms.

2. RELATED WORKS

TABLE I. THE IMPORTANCE TO STUDYING THE SOCIAL REQUIREMENTS OF S-COMMERCE

Importance	Aspect
1) Customer's expectation	<ul style="list-style-type: none">✓ Requirements engineering technique help to define the requirements based on the user's need.✓ Focus on the requirements which increase customer's attention and loyalty.✓ Efforts should be placed toward developing business model for this field to understand customer's expectations on s-commerce platform
2) Enhance the enterprise economic value	<ul style="list-style-type: none">✓ Developing a requirements framework will assist the developers in focusing on the requirements (both front-end and back-end) which enhance the economic values of the enterprise [20].
3) Managing the workflow	<ul style="list-style-type: none">✓ Providing a framework of s-commerce requirements will establish the common basis for communication for all disciplines involved in the project.
4) Mitigate the issues of the existing s-commerce platforms	<ul style="list-style-type: none">✓ Currently, the platforms (Zazzel, Amazon, Shein, eBay) have been developed without engineer the requirements, for this reason something missing in most of current social commerce platforms.
5) Back bone of all phases in SDLC	<ul style="list-style-type: none">✓ Requirements identification is the first step in SDLC [21]and in the s-commerce development processes which defined by [2].✓ Therefore, the phases which come after going to be affected if the developers didn't have a well defined requirements.✓ Requirements engineering directly influences the project quality and costs. The better the requirements engineering, the less expensive the errors that occur during development

TABLE II. STUDIES DISCUSSED THE SOCIAL FEATURES OF S-COMMERCE.

Study	Area
[3]	The authors describe the categories of social requirements of s-commerce namely; social connection, social communities, social shopping, social marketing, and social application.
[4]	The authors investigated the design features of s-commerce layers: individual, conversation, community, and commerce. They address some of the design features that need to be considered in the s-commerce design
[2]	The author discussed the building blocks of s-commerce and the features of the interaction interface in terms of enterprise social interaction.
[6]	The authors listed the design features into four components: social-related exchange activities, information, and technology. and management
[13]	The author described the social features as technical features, these features were categorized based on the s-commerce building blocks.

3. RESERCH METHODOLOGY



- ◇ **Research question:**

What are the social requirements of s-commerce platforms?

- ◇ **Research objective:**

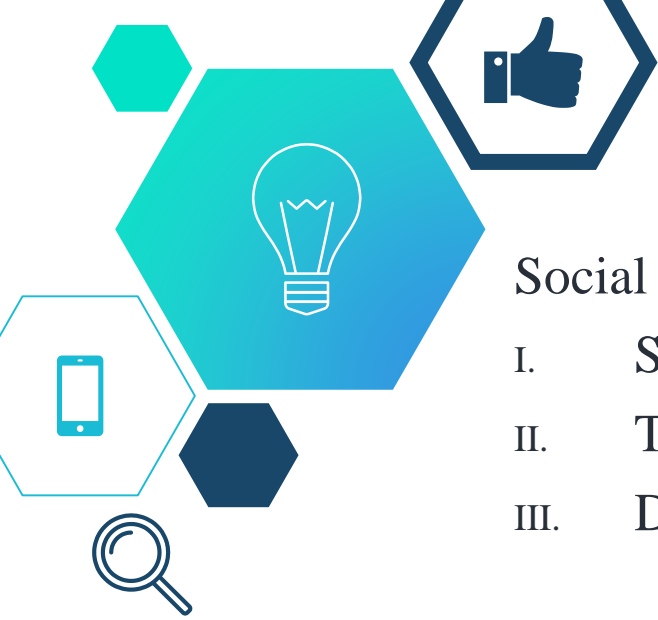
- ✓ Investigate the categorization of social requirements of s-commerce that are used to develop s-commerce platforms and critically appraise the evidence for the need of developing guidelines.
- ✓ Assist the developers in the process of engineering the social requirement of s-commerce platforms.

- ◇ We propose a systematic literature review (SLR) as a method to answer the main research question.

TABLE III. STUDIES SOURCES

No. of studies	15
Period	2007-2021
Database	Google Scholar, ScienceDirect, Ieeexplore, Springer, SciELO, Redfame, and EDSIG

We propose a requirements engineering technique as a method to implement our proposed requirements framework.



4. RESULTS

Social requirements of s-commerce can be categorized based on:

- I. S-commerce building blocks.
- II. The four layers of the s-commerce design model.
- III. Design principles of s-commerce.

I. S-commerce building blocks

- ◇ S-commerce are : Participants, Community, Social Interaction and Content.
- ◇ Previous studies explored the social requirements based on the main functions of each element of s-commerce building blocks.
- ◇ Table III shows some examples of the social requirements AND Table IV shows the features in a similar categories. . .

TABLE IV. SOCIAL REQUIREMENTS OF BASED ON S-COMMERCE BUILDING BLOCKS [2][8][9][10][11][12].

Element	Features
Participants	<ul style="list-style-type: none"> • The participants should be allowed to register/ login • The participants should be allowed to manage his/her social profile
Community	<ul style="list-style-type: none"> • The participants in the community should be able to perceive real-time care and support from the support team. • The participants in the community should be able to perceive care and support other members of the community.
Social Interaction	<ul style="list-style-type: none"> • The platforms should be able to implement SLATES (Search, Link, Author, Tag, Extend, and Signal) features and 4RC (Rank, Rate, Recommend, Review, and Comment) features. • The platforms should be able to implement other social requirements such as: like, follow and review.
Contents	<ul style="list-style-type: none"> • The platforms should be able to view the most recent activities of participants. • The platforms should be able to provide content in a different format: text, photo, audio, and video. • The platforms should allow participants to interact with the social content by providing reviews or rating others' reviews.

TABLE V. SOCIAL REQUIREMENTS FOR S-COMMERCE PLATFORMS[13]

Category	Features
Promote and attract others	<ul style="list-style-type: none"> • Share buttons, Like buttons, Comment, Rating tool, Review tool, and, Recommendation tool.
Create self-identity and a sense of community	<ul style="list-style-type: none"> • Blog pages, Social login buttons, Social user profiles, Live chat tools, Tag button, Follow button, and, Discussion forums.
Generate content	<ul style="list-style-type: none"> • Add or update product tools, Post media tools, and, advertising tools.
Act connectivity	<ul style="list-style-type: none"> • co-shopping and Co-browsing tools.

II. The four layers of the s-commerce design model

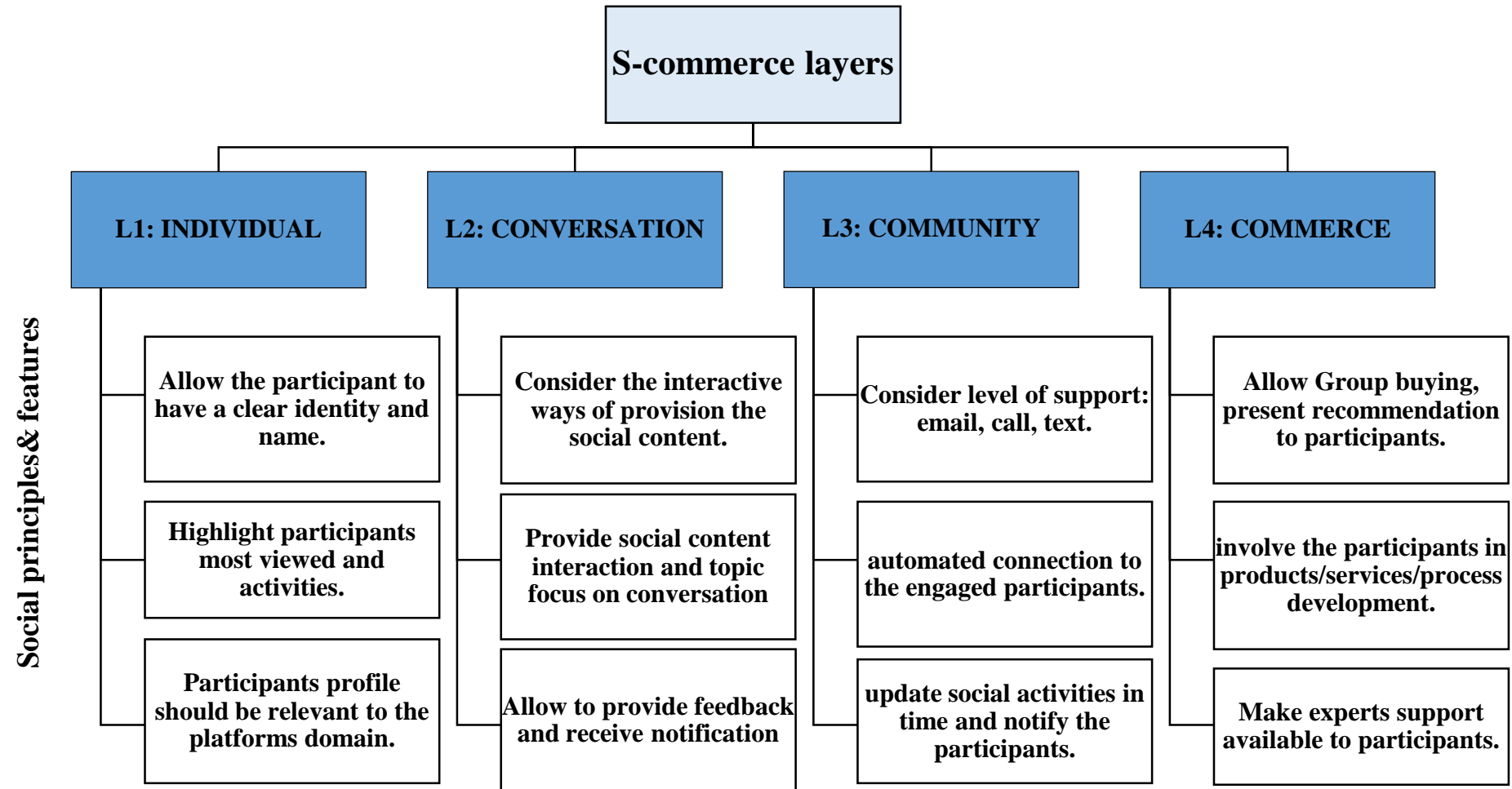



Fig.1. Social requirements based on s-commerce layers[4][10][14]

III. Social requirements based on Design principals

TABLE VI. SOCIAL REQUIREMENTS FOR S-COMMERCE PLATFORMS[13]

Principle	social requirements
Sociality	S-commerce platforms should be able to implement social presence, social communities, sharing, participants, and user-generated content.
Functionality	Transaction capability, quality of the information, system availability.
Social damage	S-commerce platforms should not cause any damage to participants and communities.
Usability	S-commerce platforms should be able to provide a good content design, consistency, and easy to use/ navigate.
User control	S-commerce platforms should provide data control for participants.

4. DISCUSSION

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- ✓ The social requirement of any system vary in its complexity according to the functionality behavior. Therefore, it is essential to have a technique that can be used to manage these social requirements..
 - ✓ S-commerce developers should fill the advancing social requirements of the s-commerce, the current applications have steadily evolved in giving complex functional features within the user's interface [22].
 - ✓ The study results are a reference point for further social requirements of s-commerce research. Since the social requirements are very expanded, it becomes difficult to define the exact features for developing s-commerce platforms.

Our proposed social requirements framework

Why?

Identifying the social requirements of s-commerce will assist the developers in the process of engineering the social requirements of s-commerce platforms.

Currently, the study's results shows that the gap exists in providing a comprehensive guideline for s-commerce development, specifically in identifying the requirements.

Framework requirements types?

1) **Front-end requirements**

These requirements present the interactive features of SLATES and 4RC, they are directly impact the enterprise social interactions as most of the interaction's features are placed in this kind of requirement.

2) **Back-end requirements**

These types of requirements support the improvement of the product/service architecture and the business models and processes. Also, they support commercial activities like checkout and payment.

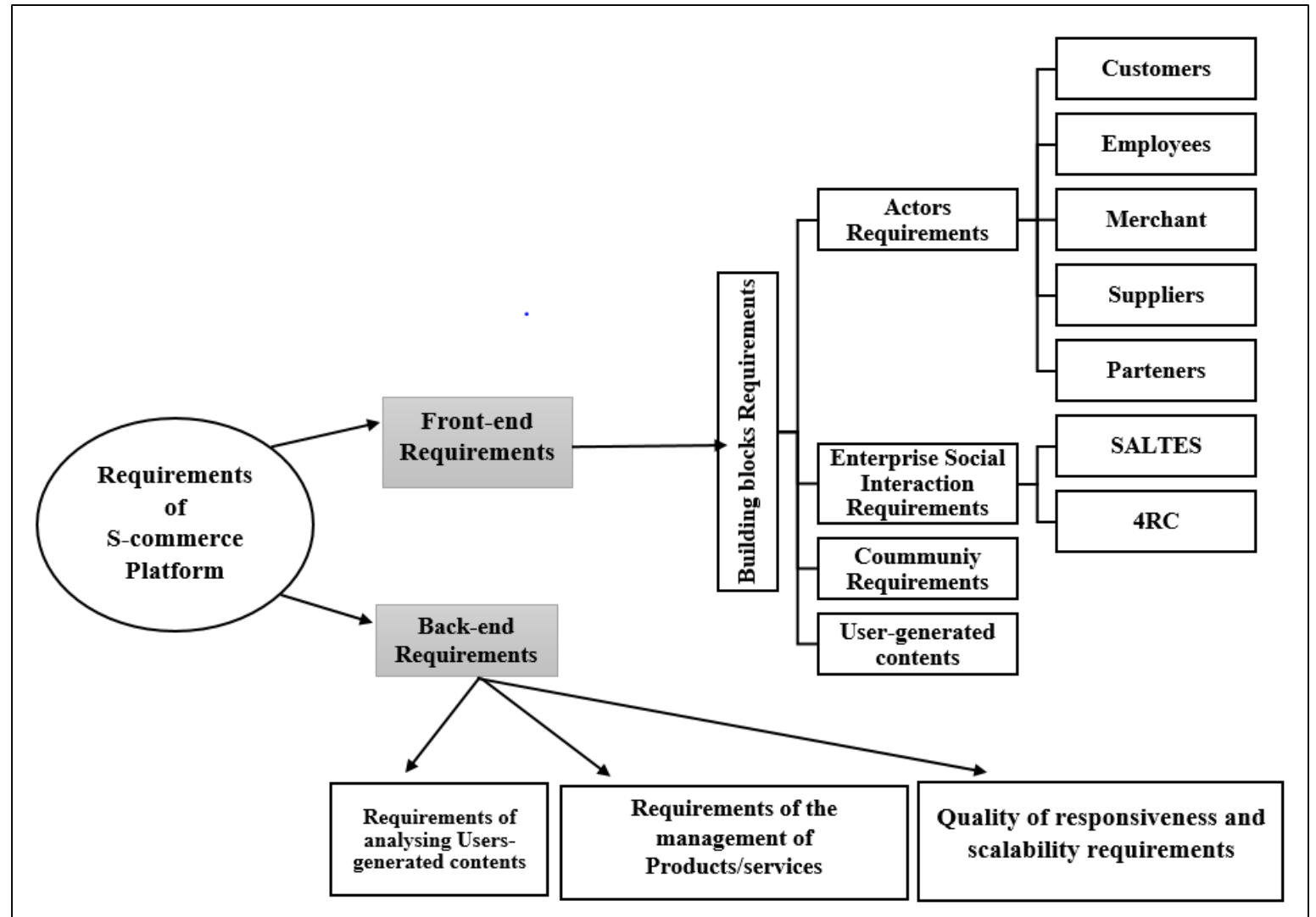


Fig.2. Proposed requirements types (front-end & Back-end)

Framework Structure ?

Proposed framework is described as a set of generic requirements that should be instantiated by the developer to get the requirements of a specific s-commerce platform, this instantiation would be performed using the following:

a)A framework provides a dynamic tool/system that assists the developer to follow the five processes of RE (**Requirements Engineering**) **Technique :** (**Elicitation, Negotiation, Specification, Validation, Management**) to generate a set of specific requirements, considering the variability of the s-commerce platform.

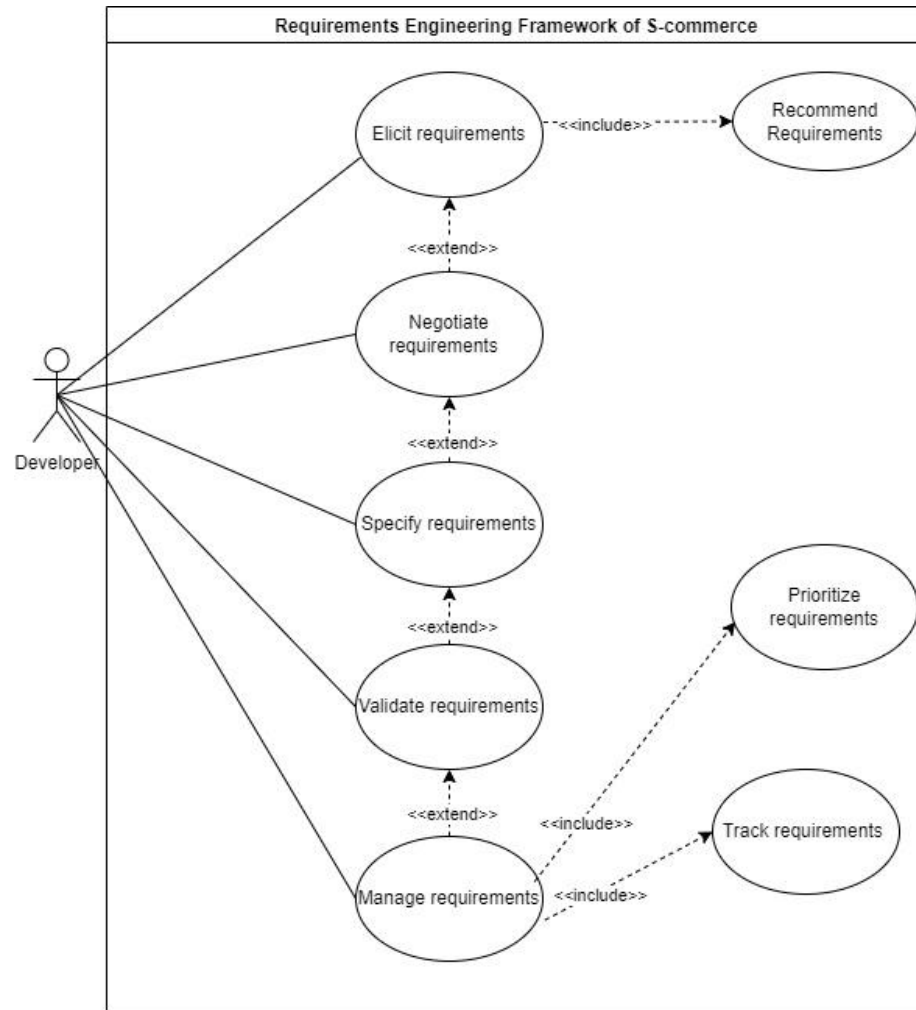


Fig.3. Proposed RE framework structure

The structure of the framework process in following link

<https://ibb.co/ygDtNhc>



6. CONCLUSION

The categorization of the social requirements will provide:

- ✓ An insight to future researchers to develop a general set of s-commerce requirements including both types of requirements front-end and back-end to be used as a guideline.
- ✓ Moreover, our proposed framework will be as a set of guidelines to assist the developers in engineering a complete set of sound requirements, as a critical step toward the design and deployment of s-commerce platforms.
- ✓ Future works may consider another technique to collect other social requirements of s-commerce for instance: survey or interview.

REFERENCES – the list includes 22 publications