



CHAPTER 2

Requirements from the customer's perspective

Objectives

- After finish this chapter, student should understand that the customer-development relationship is so critical to software project success.
- This chapter also discusses the critical issue of reaching agreement on a set of requirements planned for a specific release or development iteration.
- Requirements Bill of Rights for Software Customers and a corresponding Requirements Bill of Responsibilities for Software Customers could bring to student the importance of customer—and specifically end user—involvement in requirements development.

1. The expectation gap
2. Who is the customer
3. The customer-development partnership
4. Requirements Bill of Rights for Software Customers
5. Requirements Bill of Responsibilities for Software Customers
6. Creating a culture that respects requirements
7. Identifying decision makers
8. Reaching agreement on requirements

The expectation gap

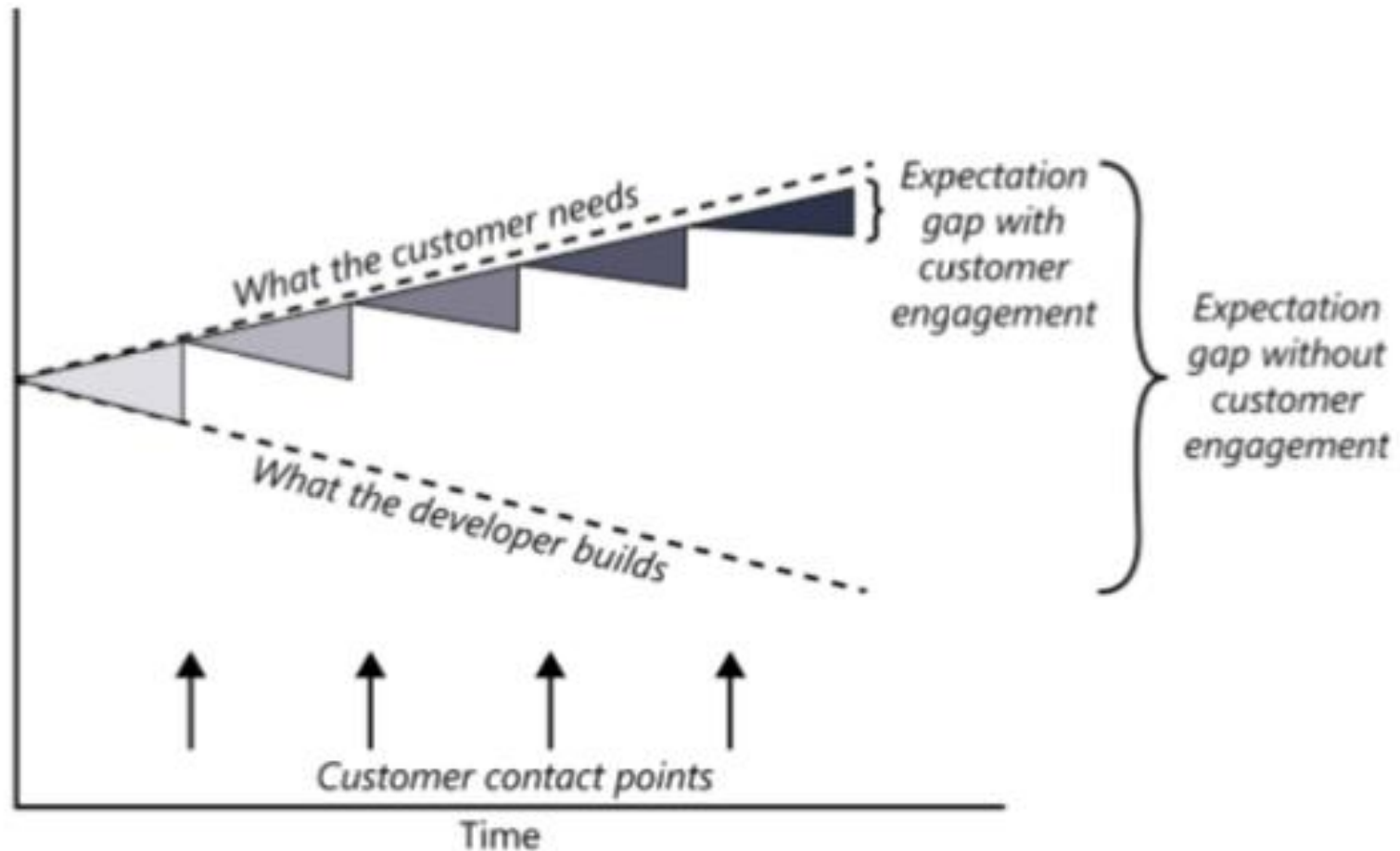


FIGURE 2-1 Frequent customer engagement reduces the expectation gap.

- Without adequate customer involvement, the inescapable outcome at the end of the project is an expectation gap, a gulf between what customers really need and what the developers deliver based on what they heard at the beginning of the project (Wiegers 1996).
- The best way to minimize the expectation gap is to arrange frequent contact points with suitable customer representatives.
- These contact points can take the form of interviews, conversations, requirements reviews, user interface design walkthroughs, prototype evaluations, and – with agile development – user feedback on small increments of executable software.

Who is the customer?

- Before we can talk about customers, we need to discuss stakeholders.
- *Stakeholder* is a person, group, or organization that is actively involved in a project, is affected by its process or outcome, or can influence its process or outcome.
- *Stakeholders* can be internal or external to the project team and to the developing organization.
- Stakeholder analysis is an important part of requirements development.



Who is the customer?



FIGURE 2-2 Potential stakeholders within the project team, within the developing organization, and outside the organization.

Who is the customer?

- Customers is a **subset of stakeholders**. A *customer* is an individual or organization that derives either direct or indirect benefit from a product.
- *Software customers* could request, pay for, select, specify, use, or receive the output generated by a software product.
- *Some stakeholders* are not *customers*, such as legal staff, compliance auditors, suppliers, contractors,...



Who is the customer?

- User requirements should come from people who will actually use the product, either directly or indirectly.
- These users (*often called end users*) are a *subset of customers*.
- Direct users will operate the product hand-on. Indirect users might receive outputs from system without touching it themselves, such as warehouse manager.



The customer-development partnership

- An excellent SW product result from a well-executed design based on excellent requirements.
- Excellent requirements result from effective collaboration between developers and customers (in particular, actual users) – a partnership.
- A collaborative effort can work only when all parties involved know what they need to be successful and when they understand and respect what their collaborators need to be successful.
- Next slides show you the Rights and Responsibilities for SW customers.

Customers have the right to:

1. Expect BAs to speak your language.
2. Expect BAs to learn about your business and your objectives.
3. Expect BAs to record requirements in an appropriate form.
4. Receive explanations of requirements practices and deliverables.
5. Change your requirements.
6. Expect an environment of mutual respect.
7. Hear ideas and alternatives for your requirements and for their solution.
8. Describe characteristics that will make the product easy to use.
9. Hear about ways to adjust requirements to accelerate development through reuse.
10. Receive a system that meets your functional needs and quality expectations.

Customers have the responsibility to:

1. Educate BAs and developers about your business.
2. Dedicate the time that it takes to provide and clarify requirements.
3. Be specific and precise when providing input about requirements.
4. Make timely decisions about requirements when asked.
5. Respect a developer's assessment of the cost and feasibility of requirements.
6. Set realistic requirement priorities in collaboration with developers.
7. Review requirements and evaluate prototypes.
8. Establish acceptance criteria.
9. Promptly communicate changes to the requirements.
10. Respect the requirements development process

Identifying decision makers

- During the project management, you might need to resolve some conflict, accept (or reject) a proposed change, or approve a set of requirements for a specific release.
- Early in your project, determine who the requirements decision makers will be and how they will make decisions.
- The decision-making group needs to identify its *decision leader* and to select a *decision rule*, which describes how they will arrive at their decisions.

- There are numerous decision rules to choose from, including the following:
 - The decision leader makes the choice, either with or without discussion with others.
 - The group votes and the majority rules.
 - The group votes, but the result must be unanimous to approve the decision.
 - The group discusses and negotiates to reach the consensus. Everyone can live with the decision and commits to supporting it.
 - The decision leader delegates authority for making the decision to one another individual.
 - The group reaches a decision, but some individual has veto authority over that decision.

Reaching agreement on requirements

- Reaching agreement on the requirements for the project to be built is at the core of the customer-developer partnership. Multiple parties involve in this agreement:
 - Customers agree that the requirements address their needs.
 - Developers agree that they understand the requirements and that they are feasible.
 - Testers agree that the requirements are verifiable.
 - Management agrees that the requirements will achieve their business objectives.
- Many organizations use the act of “singing-off” (why not signing on?) on the requirements as the mark of stakeholder approval. All participants know exactly what sign-off means or problems could ensue.

The requirements baseline

- A requirements baseline is a set of requirements that has been reviewed and agreed upon and serves as the basis for further development.
- A meaningful baselining process gives all the major stakeholders confidence in the following ways:
 - Customer management or marketing is confident that the project scope won't be out of control because customers manage the scope change decision.
 - Users are confident that the development team will work with them to deliver the right solution.
 - Development management is confident because the development team has a biz partner who will keep the project focused on achieving its objectives and will work with development to balance schedule, cost, functionality and quality.
 - BAs and PMs are confident that they can manage changes to the project.
 - QA and test teams are confident to develop their test scripts and be fully prepared for their project activities.

What if you don't reach agreement?

- It can hard to achieve sign-off from all the relevant stakeholders. Barriers include logistics, busy schedules, and people are reluctant to commit and be responsible for later. This contributes to the dreaded trap (bẫy khủng khiếp) of analysis paralysis (mất khả năng phân tích).
- *“if you don't reply by next Friday with your changes and/or sign-off, I'm going to assume you are agreeing to these requirements.”*. That's one option, but really it equates (đánh đồng) to *not* reaching agreement.
- In such situation, you're better off moving forward – cautiously – with the assumption that you don't have approval from the recalcitrant stakeholders. Let them know that, if they want to change things, there's a process in place to do that.

Agreeing on requirements on agile projects

- Agile projects don't include a formal sign-off action. They generally maintain requirements in the form of user stories in a product backlog.
- The product owner and the team reach agreement on what stories will be developed in the next iteration in a planning session. The set of stories is chosen based on their priority and the team's velocity (productivity). After that set has been established and agreed to, the stories contained in the iteration are frozen (đóng lại). Requested changes that come in are considered for future iteration.
- Commonly in agile projects, the product owner publicly accepts or rejects the requirements for an iteration, which consists of a set of stories and their accompanying acceptance criteria and acceptance tests. The ultimate "sign-off" is acceptance of the working, tested software delivered from the iteration.

THE END THANK YOU!