

Exceeding Customer Satisfaction by Creating and Delivering Customer Value in Software Development Organizations

Udhayakumar SP*, Meenakshisundaram Sivasubramanian

Department of Science and Technology, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu, India

ABSTRACT

“Value” is the customer's perception of the proportion of benefits received against the costs incurred to consume a product or service from a vendor. A customer's perception of “value” is always two-fold i.e., (1) Direct utility from the product or service (functionality, stability, security, speed, design alternatives, flexibility, standard compliance, etc.) and (2) Relationship aspects (Product expertise of the vendor, vendor's ability to partner and provide solutions based on market trends, and running social programs for the customer, etc.), in short, any deliverable or activities which will help the customers achieve their business objectives. Merely delivering as per the contract does not, please today's customers anymore and is not accounted as value delivery. Vendors are expected to go beyond the stated and agreed requirement, understand the needs of the customer's business, align with their strategies, and incorporate them into their product delivery. The key to meeting these expectations is, getting the right perspective of what is valuable to the customer and an understanding that it changes from customer to customer depending on the sector, geography, market needs, etc.

“Value” creation is a continuous process throughout the software lifecycle. Since there are no definitive guidelines to support the identification of what is valuable for customers, the Author suggests discussing creating a “value providing culture” so that by default the organisation will be value-oriented and deliver value to its customer. In such a state, the value required by the customer is inherent in the product or the services delivered.

Value culture comprises three-dimension tenets (1) Value creation (2) Value engagement and (3) Value delivery.

The author attempts to detail these value dimensions in this paper and elaborate on how these value dimension tenets help in creating Value culture in the organisation which in turn would lead to customer delight.

Keywords: Requirement elicitation; Value creation; Value engagement; Value; Value delivery

INTRODUCTION

The complex competitive environment in which today's organisations operate makes them demand more value from the products that support their business/vendors that provide services to them. Apart from the direct utility of the product/service, these organizations see delivered value as a key factor when looking for new ways to achieve and maintain a competitive advantage [1].

Value” can take any form for these organizations. It can be the stability of the product, faster time to market, lesser cost of

operation, and flexibility of the product/service to adopt to newer market trends. For some organizations, it is a combination of all. Such value can be classified into two types i.e.

- Base value-product/service-related values, where the vendor organisation is expected to deliver the contracted service with quality and within the timeframe and budget.
- Additional value-the value that would emanate from services to be rendered over and above base value.

Though we can have different aspects and definitions of value, it is always about the customer and their business objectives [2].

Correspondence to: Udhayakumar SP, Department of Science and Technology, Sathyabama Institute of Science and Technology, Chennai, Tamil Nadu, India, E-mail: spuk19@gmail.com

Received: 11-Aug-2022, Manuscript No. IJAOT-22-18828; **Editor assigned:** 15-Aug-2022, Pre Qc No. IJOAT-22-18828 (PQ); **Reviewed:** 29-Aug-2022; Qc No. IJOAT-22-18828 **Revised:** 07-Sep-2022, Manuscript No. IJOAT-22-18828 (R); **Published:** 14-Sep-2022, DOI: 10.35248/09764860.22.13.208.

Citation: SP Udhayakumar, Sivasubramanian M (2022) Exceeding Customer Satisfaction by Creating and Delivering Customer Value in Software Development Organizations. Int J Adv Technol.13:208.

Copyright: © 2022 SP Udhayakumar, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

MATERIALS AND METHODS

Getting the correct requirements from the customer and implementing product or service improvements on a continuous basis, developing new and innovative ways to proactively provide solutions aligned to the customer’s business objectives can instill a value creation culture in a vendor’s organization [3]. Who in the vendor organization would be responsible to deliver value to the customer? Should a separate department be created to drive this initiative and oversee all projects to ensure they deliver value? The Author recommends creating a “value culture” i.e. value creation is embedded in the culture of the organization. This knocks away the dependency on people or on any task force running initiatives [4].

Value creation is institutionalized within the organisation way of working. It goes beyond the expected and enables the utilization of untapped sources of growth. Again, creation alone is not enough if the company does not have the vehicle and capability to sustain those efforts [5]. There is no doubt that the most dependable way of vendor organisation to provide value to the customer is to identify and ignite all engines of value creation, value engagement and value delivery (Table 1).

Value creation	Value engagement	Value delivery
Transforming operating models	Profit sharing models	Delivery framework
Improve quality and stability through defect preventions	Cost saving sharing models	Quality systems
Service innovation	Partnership with other partners to provide service	Information security
Value creation framework		Customer centricity
-	-	Employee empowerment
-	-	Skill and competency to deliver value

Table 1: Engines of value creation, value engagement and value delivery.

Value creation

Value creation is of growing importance especially in the competitive market, while all service providers/vendors provide the same base value, the customers are looking at the difference in the base value provided and the additional value they create [6]. It is imperative for the organization to create such value as it leads to customer loyalty, better financial performance, and sustainable advantage for companies. It is important for businesses (vendor organisations) to know how they can create value.

There is not one method to create value which is suitable for all companies, because the manners of how companies create value for their customers differ from company to company and there are a lot of influencing factors like size of the company, domain of the company, market in which they operate, current problems they face, competition, etc. the below are the tenets which are common across organization in creating values [7].

Operating model transformation

It is imperative to align the vendor organisation ways of working to the customer organisation to create value. We may want to know the feedback for our deliveries quickly so that we can calibrate ourselves quickly [8]. Embracing Agile methods have greatly increased success rates in software development in quality improvement and time to market. Agile way of working moves people from silo to a team and give them full freedom where they self-manage and deliver the application/software which accelerates profits, satisfies customers through quick deliveries, and creates new generation leaders [9].

Agile is an alternative to the command-and-control style of project execution. In the agile way of working, the team is ultimately responsible for delivering value to customers and to the business. The team takes the highest priority items, breaks them into tasks and delivers thus bringing more value to the customers quickly [10].

Since there will be an improved engagement with the customer, the right priority will be addressed which the customer will value. Failing fast and early build are some characteristics of the agile

way of working that will help customers to get the right product out quickly [11].

The operating model transformation needs to bring the following:

- Commitment from the management to a new way of working.
- Managing organisation change management.
- Process for agile way of working and customization guidelines.
- Process for acceptance criteria to go into build and to go into production.
- Process for business engagement and shift testing left methods.
- Collaboration tools.
- Addressing dependencies.
- Customer commitments on the new way of working as their collaboration required frequently.

Improve quality and stability through defect preventions

Customers do not like rework. Rework will not only cost the company but also affects the time to market and give an edge to the customers' competitors. Developing a quality product right the first time is vital. Quality is defined as conformance to requirements. Quality is the absence of defects. Stability is the ability of the product to continue to function over time without failure or slowing down [12].

There are three aspects to bringing quality and stability in the product (1) Prevention activities, where the defects are prevented from entering the application or software, (2) Early deduction activities where the defects are identified earlier so that it doesn't percolate into the next phase and (3) arresting the defects moving into production. This calls for the whole process transformation in the organization bringing prevention activities, early deduction techniques and testing activities [13].

RESULTS AND DISCUSSION

Prevention-requirement elicitation

Whatever has been asked by the customer or user, giving the same in its entirety is quality. The product or application delivered should satisfy the purpose. So, understanding the requirement is key in developing the product/application without defects [14]. Without a thorough understanding of the requirements, the defects injection increase multi-fold challenging the quality and stability of the product and in an increased failure and maintenance cost.

Understanding the customer context and understanding how the product would be used by the users/customer would help the software development team to create the expected "Value" to the customer [15].

Requirement elicitation plays a major role in getting such expectation from the customer. To arrive at a correct elicitation technique and the process to execute the same is the key. Most functional and non-function defects are the outcome of non-conformance to the requirements. A proper process for requirement elicitation and management would help prevent the defects [16].

Involvement of the whole software development team during the requirement elicitation or refinement sessions helps to uncover implicit requirements and expectations of the customer are made clearer. This process ensures the value delivery before the requirements move forward into the development iteration [17].

Early deduction-quality gates

Improve quality and reduce risks of errors being identified late by introducing a clear quality gating system at various phases in the software development lifecycle [18].

Quality gates are the checkpoints or decision points at various strategic places/phases in a process at which the quality of the process (and deliverables) up to that point are objectively

assessed and is agreed to be moved to the next phase. The quality gating system helps to deduct the defects earlier in the lifecycle (Figure 1).

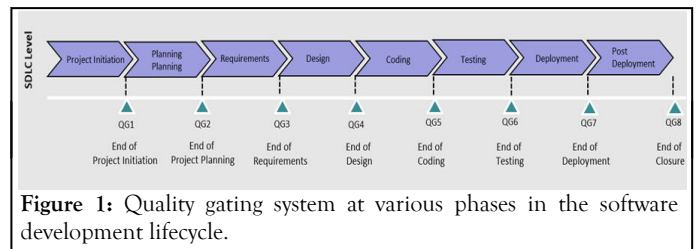


Figure 1: Quality gating system at various phases in the software development lifecycle.

The quality gates solution calls for the below:

- Define the quality gates process.
- Identify the phases where the quality gates will be deployed.
- Create roles and responsibilities for e.g., a person who is developing the product cannot do stage gate review for the same product.
- Train people on how to use the processes (templates and criteria).
- Measurements to be defined.
- Quality gates are early in a waterfall; however, it must be tailored to suit the agile projects as well.
- If there is a process of exception, need to define the same (in some cases the product may not meet the quality gate criteria, but still need to move into the next phase due to some dependency or emergency).

Last mile arrest-testing

Testing is the last mile in the software development lifecycle where the defects are arrested from going into production/customer. Testing is defined as a process of evaluation that whether the specific system meets its originally specified requirements or not [19]. It is a process encompassing validation and verification process that whether the developed system meets the requirements defined by the user/customer [20]. Though the cost of fixing defects is more when identified in testing, at least the defects will not go into production. This will ensure the quality and stability of the product to the customer.

There are various levels and techniques in testing. For example, system level testing, integration testing, user testing, etc., and black box technique (to check on the functionality), white box testing (testing the internal structure of product), grey box testing (combination of black box and white box). The levels and techniques are applied based on the project's needs [21].

Service innovation

Apart from ensuring quality, speed, stability and security, it is also important to give them innovative service which includes the.

- Service lines i.e. capabilities in different areas so that a single service or integrated service can be provided to the customer
- Unique services i.e. services not offered by any other vendor, but created by you based on your experience with other customers, this is possible again understanding the customer landscape and his requirement and what he wants to achieve in the market where he operates

- Resourcing models i.e. onsite and offshore combinations, fixed and flexi ramp-up, ramp-down models,
- Collaboration platforms where customer and vendor can work from anywhere or even work with other vendors
- Domain-based services etc. [22].

Service innovation by itself will not create value for the customer, it must be correctly applied for customer gains. The vendor needs to focus on driving business transformation and value for every customer they work which will create value for the customer as it is business-led [23].

Value is created by assisting customers to reduce the IT spend ratio with these new and unique services, build operational efficiencies and increase the impact of IT on business strategy by aligning business and IT strategies [24].

Value creation framework

Value creation portal is a place where the employees having ideas can log in their ideas so that they can be evaluated and taken to customers. The employees who are already created value for customers on the ground can also update such values in the portal where it can be considered for other customers [25].

Only engaged employees can create value, the customer value becomes possible only when innovation like the value creation framework is institutionalized and democratized through some specific systems. This can happen through a Value Portal which will let employees contribute their ideas. This mechanism will give an opportunity to employees to generate ideas which can be of value to a customer as well as value to the organisation they work for.

It is easy to suggest ideas for a customer where they work as they know the background of the customer, their culture, and their needs and to an extent how to design the value to the customer. The same value cannot be duplicated to other customers without knowing their background and culture. The value may or may not be applicable to the other customer. This kind of value portal can help in collecting such ideas/values, evaluate the same, study the applicability and can be taken to the other customers, if required it can be customized for the other customer's context. They can show the success story of the other customer where it was implemented as a case study [26].

Employees can be rewarded and recognized for the best ideas that create a better base value or additional value for the customer. The tentative value creation framework process flow is given below, the organisations can still customize it.

- Idea-generate ideas and log the same in portal.
- The reviewer (The SME can be identified by the Value Creation team) reviews the idea.
- Have a discussion with the idea generator to understand and enrich the idea.
- Approves the idea.
- Submit to the customer with a proper business case.
- Customer approves.
- Support Implementation of ideas or customer implements on his own.

- Reviews the implementation effectiveness and does any course correction required.
- Get the output/outcome/results of such implementation.
- Customer rates the idea based on the benefit he gets.
- Based on the customer rating, the idea generator can be rewarded.

Value engagement

Each customer must be treated differently by understanding the characteristics and needs of the customer organisation. Based on domain, geography, competition, maturity, product landscape, the expected value from the vendor organisation will change. The vendor organisation must engage with the customer based on the above [27].

Engagement models

Financial benefit is one way to quantify the value created. The innovate engagement models will help in creating such financial benefits. There are different models like outsourcing, co-sourcing, near sourcing, core, and flex model, and on and off combined models, these engagement models are mainly driven by cost arbitrage; today different customers attach different weights to various factors that define the engagement models. The vendor organisation should recommend a model based on factors that will bring maximum value to the customers [28].

Reducing cost: Customers engage mainly to the reduce costs. The engagement basically here is to transform from fixed cost engagements to variable cost engagement as easy ramp-up and ramp-down is possible with vendors and the cost can be incurred according to the level of engagement, this will improve the operational flexibility, as well as customers, do not want to have Bench for them, Vendors to provide a solution by way of engagement models to achieve this cost optimization for the customer.

Access to expertise: Here the value is bringing the best minds to the project to develop a solution or a product. The value is the uniqueness, quality, and expert (subject matter expert) knowledge. The vendors' organisation needs to offer such competencies to the customer.

Scaling: The customer sees value in how are scaling up to the requirements of the customer. E.g., Opening an office in Mexico, the vendor should be able to scale up the operations by providing 400 experts. Giving a quality product and having expertise with only a few who could not scale up when needed will eventually have dissatisfied customers.

Managed captive: The customer wants to create a captive (centre an outsourced country or in the same country where he operates) and move the software development operations there. This often happens when the customer has business operations all over the world and wants to have a centralised software development centre. The vendor should be able to create a captive and run it for the customer. The vendor will run the captive for the customer while the customer company executives focus on building and strengthening their company's core business. For example, a bank's core business is banking, while

it can move its software development to Captive where the banking executives can concentrate on bringing new banking products. The customer expects vendors to have the expertise to run the captive for them.

Build-operate-transfer model: This model is called BOT, where the vendor builds the development centre/captive for the customer, operates it for some time and once it moves into a steady state, transfers the operations to the customer itself. The customer saves time in creating a captive and avoiding the nuances of the growth stage.

Pricing models

Designing flexible pricing models based on the customer needs to create a huge value for the customers. Different customers opt for different pricing models for their engagement. Vendor organisation should have the capability to provide such pricing model options [29]. The various type of pricing models normally adopted is the FTE pricing model, fixed pricing models, output-based pricing models and outcome-based pricing models.

Full-time employment pricing model: Full-Time Equivalent (FTE) refers to the unit of measurement equivalent to an individual worker working for a workday. This is also called as T and M Model (Time and Material model) where the pricing is based on per person hour or day. This is based on the skills and locations. This model helps the customer to get the required expertise from the vendor organisation where the project is managed by the customer or the vendor organization.

Fixed pricing models: In fixed pricing models, the project execution is taken for a fixed price, the project is managed by the vendor and oversight is done by the customer. The vendor gets the requirements from the customers or from the customer's, and bring the expertise to develop and deliver the product. All this is done for a fixed price, if the cost overshoots, it must be borne by the vendor. Customer is free from project management and day-to-day operations. Governance and oversight are the only work customer will do to ensure on-time delivery of the product.

Output-based pricing: Pricing is fixed based on the output. The output can be defined by the customer, for example, it can be based on a function point (estimate) i.e., price per function point, or else the payment is done once the customer sees and approves the design document or code or test cases, etc. Output-based pricing model brings a lot of transparency into the pricing equation and makes underlying delivery nuances clear. Customers also find this pricing model attractive, as they can expect greater delivery certainty, better transparency, and more flexibility from the suppliers, leading to higher value engagements.

Outcome-based pricing: This pricing model is based on the outcome. Outcome-based pricing models are suitable when the outcomes can be directly linked to the customer goals achievement and business outcome of the end consumer.

According to a study done by Deloitte, 76% of enterprise customers at some point have discussed outcomes with their technology providers (vendors). Keeping up with this trend,

more and more companies are adopting the outcome-based monetization model where customers are charged based on the outcome delivered by a solution, a model which can potentially benefit both the provider and the customer [30].

It is a structure where both the buyer and service provider share financially in the value created (increased profits, reduced operating expenses, etc.), however, besides sharing gains, risks are also equally shared. For example customer can enter a contract with a vendor on cost reduction through lean methods and the customer can contract 20% of the saving as a share to the vendor. The success of such models however lies heavily on measuring the outcomes. It is important to maintain a balance such that the buyer can define an outcome appropriately which is measurable and acceptable to the vendor.

Customer relationship management

CRM (Customer relationship management) helps business to recognise the value of their customers and to capitalise on improved customer relations. The better you understand your customers, the more responsive you can be to their needs.

CRM is a strategy to learn more about customers' needs and behaviors so that value can be provided to the customer. A good example of CRM in software development is developing the right software for the customer is important but not the key, the more important point to address is adapting that software to the needs of the customer. The best products in the world may not satisfy the users if he does not know how to use them or it is not useful for their business.

The better the relationship, the easier it is to understand the customer and customer's business and generate value.

Value delivery

The real "value" creation for a customer is to give what the customer needs and in the time he wants. Many a time this is challenged, instead of giving the customer what he requires, the team ends up giving what we know he wants; there is a fundamental difference between giving what he wants and what we know he wants. This difference challenges the "value" delivery to the customer.

Value delivered is calculated based on the business benefit delivered by the service provider, such a kind of value delivery calls for high levels of quality, maturity, and customer satisfaction. As stated, in IT service world, the base value and the additional value are important and the organisation should gear its delivery, quality systems, skill (talent), security, people capability and empower the employees to deliver the value to the customers.

The company's resource capabilities (skill and competencies) are important for increasing customer value creation. A company should therefore focus on improving that capability that views the customer as a key component, to maximize the value created for them. To create value for a customer or for a product, the resource should have the capability to create such value. A company providing value should continuously train and make the resources competent and manage them.

Delivery framework

Organisations should have a robust delivery framework to cover all aspects that are important for customer engagements. The framework should provide the basis for nurturing relationships and growing them towards providing sustained Values to the customer. The key objective of this framework should be to give the solutions/product, reduce the cost of quality and reduce the operational risk.

Excellence in delivery framework determines the success in the engagement and delivering value to the customer. As part of value delivery, the organisations/vendors should address the customers' key objectives i.e., what they want to achieve.

Customer objectives may include but are not limited to

- Increasing market share.
- Competitive in the market.
- On-time to market, every time.
- Risk mitigations and effective workarounds.
- Optimized resourcing.
- Effective process.
- Improve productivity.
- Reducing total cost of ownership.
- Security.
- Stability of the product.
- Easy maintainability.
- Usability (ease of use).
- Higher customer (customers) satisfaction.
- Satisfying business.

Quality system

Delivering quality is one the best route for delivering value to the customers. For delivering quality the organization should have a defined process which is continuously improvised through feedback and industry best practices. The delivery team focuses on the controllable factors which provide quick and immediate results, but many times it misses the sustainability and continuity of performing systemic changes.

Quality Management System (QMS) is a solution to have all the processes in one place where all the process exists, ensuring sustainability and continuity of quality delivery across the Organization by performing systemic changes. The mere existence of QMS is not enough it should be institutionalized across organisation to deliver value to the customer. It is recommended to align the quality management system to the international models and industry best practices like CMMI, TMMI, ISO, ASPICE, etc.

There may be cases even after implementing the quality management system, customers may not be happy with the performance of IT, projects bleeding, etc. because the "relevance" part may be missed. How relevant are you to the business objectives, how relevant are you to the change needs, and how relevant your solutions are when compared to the problems and pain points you have? These are questions to be answered by customizing the quality management system for the customer requirement; this will be ensured by facilitation and through a proper check and balance system.

Effective quality management system and its institutionalization will be translated to significant value delivery, the value of getting it right the first time and at an optimized cost.

Information security

Customers want their data to be protected; it wants unauthorized users from accessing their information. The vendor organization should provide that information security to its customers.

An effective Information Security system protects any form of information be it digital or analog in the organisation, it covers data to network to infrastructure. There should be a proper mechanism to access the information, wrong management, or the absence of information security in the organisation results in information theft, modification, or loss. Information security is a broader context and covers cybersecurity.

Organisations need to follow the three core principles confidentiality, integrity, and availability in information security, together; these principles serve as the foundation of information security policies.

Most definitions of information security encompass a number of different issues in relation to information and data management: confidentiality, integrity and availability. Confidentiality relates to limiting the availability of information to unauthorized individuals or entities-essentially preventing information from falling into the hands of those we would like to prevent accessing it. Integrity on the other hand relates to maintaining the accuracy and completeness of the information collected over its life cycle including managing and auditing modifications to the data or data collection. Availability is a matter of insuring the information is available to the processes in which it is required, and that the security controls and processes are fit for purpose.

Confidentiality relates to limiting the availability of information to unauthorized individuals or entities, essentially preventing information from falling into the hands of those we would like to prevent accessing it. Integrity on the other hand relates to maintaining the accuracy and completeness of the information over its life cycle including managing and auditing modifications to the data or data collection. Availability is a matter of ensuring the information is available to the processes for which it is required, and that the security controls and processes are fit for purpose.

The organization's information security policies should integrate all three principles to work effectively. Again, Information security not only deals with IT security; it also encompasses legal compliance, governance, and workflow issues.

Customer centricity

Vendor organisations need to transform the way that they are engaging with the customer. Customer centric organisations can provide more value to the customers. They know the customer well; they know the cultural aspects more importantly they empathize with the customer. This requires the organization to:

- Organize to ensure focus and accountability for customer centricity.
- Design business processes that recognize different customer segment needs.
- Deliver a positive and seamless customer experience at every touch point across the customer life cycle.
- Maintain an active dialogue with customers (and acting on feedback).

Customer-centric organizations build their operating model around a deep understanding of their target customers, what those customers value and the contribution each makes to the profitability of the customer company.

Empower employees to create value to the customer

The organisations must give the resources full freedom who work with the customer, he is the best person to know what exactly the customer needs, many organisations following employee first customer second policy where employee are empowered to produce value to the customer. This philosophy not only helps create value for the customer but also believes in providing a unique and differentiated experience to its employees. Only a delighted employee can create a delighted customer.

Skill and competency improvement

The people who are on the front line who provide Value to the customer need to have the skill and competency. Having a good value creation and value engagement systems in place doesn't mean that the value will be delivered to the customer, the person who plays the game on the ground is more important to calibrate and move the value to the customer and he should have the necessary skill and competency to create that delightfulness with the customer.

The organization should run Academies or skill and competency improvement programs to upskill the resources. Those programs should be designed to help employees think a little differently. There can be internal mentors who can guide the resources to get upskilled. A process for skill and competency upliftment program can be something like below-

- Create Individual Development Plan (IDP) plans for each team member (can be self-create and evaluated by their Managers).
- Identify mentors.
- Assign mentees to mentors (individuals who created the IDP).
- Mentors can evaluate and baseline the current skill level in the scale of 1 to 5.
- Mentors can add more skills or increase the competency level of the existing skill to higher targets in the IDP.
- Identify the channels to acquire the skills (Training, on the job training, webinars, etc).
- Identification of SMEs (by Mentors) who can help the individuals to acquire knowledge (for example, cloud architect (Cloud SME) can help individuals to acquire cloud-related skills).

- Individual resources must complete the assigned set of learning and come out with a case study which is to be presented to the mentors.
- Again, the Skill Assessment should be done by the mentors or mentors can assign that to the SMEs.
- Provide feedback.
- The skill areas need not only be in technical areas, but it should also cover the behaviors and soft skills as well. Generally, we can call it TPFLS skills (technical, process, functional (domain), leadership and soft skills).

CONCLUSION

Providing value is not good enough unless distributed across the requirements landscape to the customer organisation to be effective enough and create an impact. Value without creating an impact is not meaningful.

“Value” is not merely extra work or additional deliverables provided to a customer. But taking the time to analyze, understand their intrinsic requirements and deliver what the customer organization needs to achieve their overall business objectives. “Value” delivery is something that you deliver the most important feature (or “value” creating items) as per the customer's requirement and timeline. Involvement of the whole software development team during the requirement elicitation or refinement sessions helps to uncover implicit requirements and expectations of the customer are made clearer. This process ensures the value delivery before the requirements move forward into the development iteration. Involving customers throughout the development lifecycle validates the perception of “value” among the customer and vendor organizations and ensures better outcomes from the development iteration. The sources and the contents of value may vary according to the different “targets or users for who value can be created.

Value culture has many dimensions, the most generic dimensions and the tenets of those dimensions are discussed above. If these tenets are institutionalized in an organization the value creation and delivery will be by default. If required those dimensions and tenets can be customized for the customer environment and implemented.

REFERENCES

1. Amit R, Zott C. Value creation in e-business. *Strateg Manag J.* 2001;22(6):493-520.
2. Hickey AM, Davis AM. Elicitation technique selection: How do experts do it? In *Proceedings. 11th IEEE International Requirements Engineering Conference.* 2003;169-178.
3. Boubakri N, Dionne G, Triki T. Consolidation and value creation in the insurance industry: The role of governance. *J Bank Financ.* 2008;32(1):56-68.
4. Bowman C, Ambrosini V. How value is created, captured and destroyed. *Eur Bus Rev.* 2010.
5. Pacheco C, García I, Reyes M. Requirements elicitation techniques: A systematic literature review based on the maturity of the techniques. *IET Softw.* 2018;12(4):365-78.
6. Della Corte V, Del Gaudio G. A literature review on value creation and value capturing in strategic management studies. *Corp Ownersh Control.* 2014;11(2):328-46.

7. Cuganesan S. Intellectual capital-in-action and value creation: A case study of knowledge transformations in an innovation project. *J Intellect Cap.* 2005;6(3):357-373.
8. Hoekstra HA. Value creation by software companies in the business-to-business market. Bachelor's thesis, University of Twente.
9. Alahyari H, Svensson RB, Gorschek T. A study of value in agile software development organizations. *J Syst Softw.* 2017;125:271-288.
10. Kuusinen K. Value creation and delivery in agile software development: Overcoming stakeholder conflicts. In *IFIP Conference on Human-Computer Interaction.* 2017;123-129.
11. Chari K, Agrawal M. Impact of incorrect and new requirements on waterfall software project outcomes. *Empir Softw Eng.* 2018;23(1):165-185.
12. de Tienne KB, Alessandri A, Aleo A, Agle B. Building value through sales ethics. *J Creat Value.* 2022;8(1):10-24.
13. Tredinnick L, Laybats C. Information security. 2016;33(2):76-80.
14. Martelo S, Barroso C, Cepeda G. Organizational capabilities and customer Value: A dynamic capability view. In *European Conference on Knowledge Management.* 2012;676.
15. Abbasi MA, Jabeen J, Hafeez Y, Batool D, Fareen N. Assessment of requirement elicitation tools and techniques by various parameters. *Soft Eng.* 2015;3(2):7-11.
16. Muqem M, Beg MR. Validation of requirement elicitation framework using finite state machine. In *2014 International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT).* 2014;1210-1216.
17. Kolpondinos MZ, Glinz M. GARUSO: A gamification approach for involving stakeholders outside organizational reach in requirements engineering. *Requir Eng.* 2020;25(2):185-212.
18. Davidow M. Cultivating Value Creation. *J Creat Value.* 2022;8(1).
19. Sethia NK, Pillai AS. The effects of requirements elicitation issues on software project performance: An empirical analysis. In *International Working Conference on Requirements Engineering: Foundation for Software Quality.* 2014;300.
20. Cassetto O. Information security (InfoSec): The complete guide. 2022.
21. Pacheco C, García I, Reyes M. Requirements elicitation techniques: A systematic literature review based on the maturity of the techniques. *IET Software.* 2018;12(4):365-78.
22. Jalil R, Khalid J, Maryam M, Khalid M, Cheema SN, Iqbal I. Requirement elicitation for bespoke software development: A review paper. In *International Conference on Intelligent Technologies and Applications.* 2018;805-821.
23. Seider R. Implementing phase containment effectiveness metrics at Motorola. *Crosstalk. J D ef Sof Eng.* 2006;19(11):12-4.
24. Tiwari S, Rathore SS. A methodology for the selection of requirement elicitation techniques. *Arxiv:1709.08481.* 2017.
25. Bröring S, Cloutier LM. Value-creation in new product development within converging value chains: An analysis in the functional foods and nutraceutical industry. *Br Food J.* 2008;110(1)76-79.
26. Hafeez MS, Rasheed F, Khan MR. An improved model for requirement management system. *J Inform Tech Softw Eng.* 2017;7(1):2.
27. Chakraborty S, Sarker S, Sarker S. An exploration into the process of requirements elicitation: A grounded approach. *J Assoc Inf Syst.* 2010;11(4):1.
28. Tiwari S, Rathore SS, Gupta A. Selecting requirement elicitation techniques for software projects. In *2012 CSI Sixth International Conference on Software Engineering (CONSEG) 2012;*1-10.
29. Della Corte V, Del Gaudio G. A literature review on value creation and value capturing in strategic management studies. *Corp Ownersh Control.* 2014;11(2):328-346.
30. Zhang, Z. Effective requirements development a comparison of requirements elicitation techniques. 2017;6(1):4-8.