

Yaşadığımız Günler

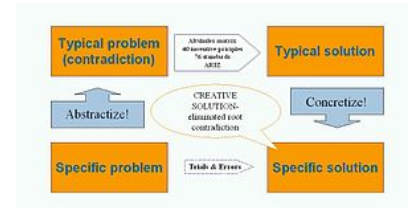
Selçuk Aytimur'un gözliğünden
süzülenler

TRIZ part II : 40 Inventive Principles in Customer Satisfaction Enhancement

Posted on 14 Nisan 2012

Here is another article from Mr. Gennady Retseptor whom I have met several months ago.

As I already stated in one my previous pages, Gennady has deep knowledge about [quality management](#) and he is the one introducing me some interesting possible applications of [TRIZ](#). He examined [TRIZ](#) very well and issued several articles on the application of TRIZ in non-technical areas. Because I do not want it to be lost somewhere in hyperspace, I re publish this article with his already granted permission. It is an interesting approach to enhance the [customer satisfaction](#).



TRIZ process for creative problem solving (Photo credit: Wikipedia)

Principle 1. Segmentation

A. Divide an object or system into independent parts.

- Utilize customized marketing approach for complete [market segmentation](#): cluster prospective buyers into groups that have common needs.
- Divide the market by regions and establish autonomous region sales centers.
- Split major sales between several business customers.
- Five steps of Six Sigma improvement approach: Define, Measure, Analyze, Improve, Control ([DMAIC](#)).
- Five steps of '5S' continuous improvement technique: Sort, Set in order, Shine, Standardize, Sustain.
- Eight steps of 'Eight Disciplines (8D)' problem solving technique.

B. Make an object or system easy to disassemble.

- Institute fast response team for handling urgent customer issue.

C. Increase the degree of fragmentation or segmentation.

- Mass customization: each customer is a market.
- [Failure Mode and Effects Analysis \(FMEA\)](#).
- [Fault Tree Analysis \(FTA\)](#).

D. Transition to micro-level.

- Use mini-kits for product advertisement.
- Describe product function in advertisement on molecular level (e.g. drugs, cosmetics, food, etc).

Principle 2. Taking Out

A. Separate an interfering part or property from an object or system, or single out the only necessary part or property of an object or system.

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Çerezlerin nasıl kontrol edileceği dahil, daha fazla bilgi edinmek için buraya bakın: [Çerez Politikası](#)

Kapat ve kabul et

- *Develop customized approach to customer satisfaction in order to differentiate the organization from competitors.*
- *Transfer key customer – related activities (marketing, advertising, etc.) to the best in class subcontractors.*
- *Apply for external accredited body approval.*
- *Utilize [cluster analysis](#): distill qualitative customer feedback into quantitative data.*
- *Use impersonal anonymous questionnaire and telephone interview to preserve confidentiality at survey.*
- *Separate discounted goods (e.g. special shelves).*

Principle 3. Local Quality

A. [Change](#) an object or system structure from uniform to non-uniform, change an external environment (or external influence) from uniform to non-uniform.

- *Select market segments on which organization will focus.*
- *Develop different strategy for each market segment.*
- *Hire different marketing professionals for each market segment.*
- *Use different (individual) marketing approach, advertising and promotions for each customer sector.*
- *Customize marking, packaging, labeling, etc.*
- *Apply the concept of ‘Vital few and trivial many’ (J.M. Juran) to customers prioritization.*
- *Provide benefits, bonuses, extra service for the most valuable customers.*
- *Weigh importance of customer needs in Quality Functional Deployment ([QFD](#)).*
- *Use Pareto diagram for customer feedback analysis.*
- *Identify non-random patterns at trend analysis of customer satisfaction survey.*
- *Emphasize product or service advantages in advertisement.*
- *Use [focus groups](#) for customer preferences study.*
- *Quantify customer preferences for product features at forced allocation survey.*
- *Address advertising by the use of customer perceived needs (image, prestige, etc.) for each customer stereotype.*

B. Make each part of an object or system function in conditions most suitable for its operation.

C. Make each part of an object or system fulfill a different and useful function.

- *Locate distribution centers near customers.*
- *Hire local people to acquire cultural knowledge of local customers.*
- *Use stratified sampling for heterogeneous customer population survey.*
- *Target sales for purchase occasion (routine use, present, season, weather, vacation, hobby, etc).*

Principle 3 (inverted). Global Quality

- *[Mass marketing](#): market with no segmentation.*
- *‘Carpet bombing’ advertisement.*
- *Census instead of sampling survey.*

Principle 4. Asymmetry

A. Change the shape of an object or system from symmetrical to asymmetrical.

- *[Market of buyer vs market of seller.](#)*

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Rule No. 10. Customer is always right için buraya bakın: [Cerez Politikası](#)

Kapat ve kabul et

- Rile No.2: 'If customer is ever wrong, reread rule No.1' (Stew Leonard).
- A happy customer will tell only 5 people about his good experience. An unhappy customer will tell 10 or more people about his bad experience.
- Apply asymmetry for mismatching at mistake-proofing to prevent unintended use ([Poka-Yoke](#)).

B. If an object or system is asymmetrical, change its degree of asymmetry.

- Male and female product or service orientation.
- Left and right side handling products.

Principle 5. Merging

A. Bring closer together (or merge) identical or similar objects or systems; assemble identical or similar parts to perform parallel operations.

B. Make operations contiguous or parallel; bring them together in time.

- Combine product quality with [service quality](#) to enhance customer satisfaction.
- Strive for business synergism with customers: partnership, merger, alliance.
- Bring customers into design loop.
- Create network of sales intermediaries.
- Choose shop or service location at heavily popular mall center.
- Offer selling sets and discount packages (e.g. 1+1 for price of 1).
- Exchange discount coupons with neighborhood shops and services.
- Promise bounty for serial labels collection (e.g. film heroes, sport teams).

Principle 6. Universality

A. Make an object or system perform multiple functions; eliminate the need for other parts.

- Realize universality and integration as global marketing and business driving forces.
- Strive for greater diversity of products or services offering due to increased level of customer expectations.
- Design and market products with multiple functions.
- Combine non-traditional with traditional service (e.g. money exchange in post office).
- Establish marketing agency with integrated sales and advertising functions.

B. Use standardized features.

- International standards.
- Product or service catalogs.
- Standardized forms for key customer related information (e.g. user guide, warranty, complaint card, satisfaction feedback, etc).

Principle 7. Nesting

A. Place one object or system inside another; place each object or system, in turn, inside the other.

- Be aware of nested customer expectations hierarchy: 'Basic, expected, desired, unanticipated' (K. Albrecht).
- Search for product or service niches inside market segments.

▪ Establish plant or store shop

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▪ Include information about other similar or related products or services into advertisement.

Kapat ve kabul et

B. Make one part pass through a cavity in the other.

- *Expose traditionally inward facing employees (designers) to external events (customer visits).*
- *Provide unanticipated product or service extra features that bring about customer 'Wow' effect.*
- *Offer surprise benefits (e.g. extra service incorporation into flight package).*

Principle 8. Anti-Weight

A. To compensate for the weight (downward tendency) of an object or system, merge it with other object or system that provides lift.

B. To compensate for the weight (downward tendency) of an object or system, make it interact with the environment (e.g. use global lift forces).

- *Attach product or service marketing to business driving forces (globalization, universality, health care, environment protection, etc.).*
- *Utilize global (Olympiads, festivals) and local (bazaars, fairs) events for product or service marketing.*
- *Use sense of emergency during crisis or, alternatively, post-crisis enthusiasm for product or service promotion.*
- *Cooperate with brand name bodies.*
- *Benchmark on the best in class leaders.*
- *Advertise by media, movies, video, stories, concerts, sport games.*
- *Use endorsement by high-profile celebrities in advertising: 'Champion customer always buys our product or get our service'.*

Principle 9. Preliminary Anti-Action

A. If it will be necessary to do an action with both harmful and useful effects, this action should be replaced with anti-actions to control harmful effects.

- *Get intelligence on competitors' products or services to anticipate their future activities and elaborate counter-measures.*
- *Utilize proprietary rights protection means (e.g. patents, licenses, trademarks, copyrights, etc).*
- *Target robust design, apply design verification, validation and reviews.*
- *Conduct field reliability testing, build reliability data package.*
- *Introduce accelerated testing (burn-in, voltage stress, thermal shock, etc.) for screening out parts prone to failure at infant mortality period.*
- *Apply failure analysis and prevention techniques – FMEA, FTA.*
- *Run b-Site customer pilot to gather information on reliability of high risk new product or service prior to distribution to general market.*
- *Introduce containment action as a quarantine measure to prevent supply of product with substandard quality (D3 from 8D).*
- *Timely replace short living parts to avoid wear-out failures.*
- *Use mistake-proofing techniques (Poka-Yoke) in product or service design to prevent unintended use.*
- *Conduct customer perception surveys for anticipation of harm to organization's reputation.*
- *Early reveal potential customer defection (switch to competitor).*
- *Get ready for negation of negative customer stereotype.*

B. Create beforehand stresses in an object or system that will oppose known undesirable working stresses later on.

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Kapat ve kabul et

- *Stretch internal vs external specification requirements (safety margins).*
- *Start from tough offer, higher price during sales negotiations.*

Principle 9 (inverted). Afterwards Anti-Action

- *Conduct lost customers survey and analysis.*

Principle 10. Preliminary Action

A. Perform, before it is needed, the required change of an object or system (either fully or partially).

- *Preliminary market research, before the product or service is designed.*
- *Start advertising at the stage of product or service development.*
- *Sell semi-fabricated products.*
- *Preliminary send questionnaire before survey interview.*
- *Use introductory questions for customer priming at survey interview.*

B. Pre-arrange an object or system such that they can come into action from the most convenient place and without losing time for their delivery.

- *Arrange organization system for Just-In-Time (JIT) delivery.*
- *Prepare presentation before customer visit.*

Principle 10 (inverted). Afterwards Action

- *Offer post-paying.*
- *Provide after-sales service.*
- *Present bounty or keepsake (token for memory) after purchase or service.*
- *Provide rebate coupon for next purchase or service.*
- *Arrange lottery with partial price reimbursement.*

Principle 11. Beforehand Cushioning

A. Prepare emergency means beforehand to compensate for the relatively low reliability of an object or system.

- *Establish business interruption contingency planning.*
- *Apply back-up approach in design for critical reliability issues.*
- *Split sales between several customers to prevent drop in sales due to unexpected decrease in demand from one major customer.*
- *Introduce contingency clauses into contracts.*
- *Build buffer stock, maintain excess Work-In-Process (WIP) to guarantee on-time delivery.*
- *Provide customers with emergency telephone (fax, e-mail), troubleshooting guide, web technical support (help file, frequently asked questions).*
- *Institute recovery system for response to customer complaints and conflict resolution.*
- *Use back-ups for energy supply, communication channels, computer data, etc.*

Principle 12. Equipotentiality

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Kapat ve kabul et

A. In a potential field, limit position changes (e.g. change operating conditions to eliminate the need to raise or lower objects in a gravity field).

- *Take advantage of off-shore trading zones.*
- *Utilize marketing, sales and advertisement promotion conduits.*
- *Remove barriers in communication with customer (language, terminology, analogies, etc).*
- *Translate catalogs, technical literature, user guide, etc. to local language.*
- *Make easy for customers a transfer from free temporary use to permanent use (e.g. web program).*
- *Provide customers with free service telephone numbers.*

Principle 12 (inverted). Potentiality Gap

- *Build entrance barriers for competitors by enhancement of product or service advantages.*

Principle 13. Inversion

A. Invert the action(s) used to solve the problem (e.g. instead of cooling an object, heat it).

- *Apply 'Push' instead of 'Pull' marketing approach in order to direct customer needs and lead them to new products or services.*
- *Manufacture to customer order instead of manufacture to stock.*
- *Conduct survey and make analysis of lost customers instead of current customers.*

B. Make movable parts (or the external environment) fixed, and fixed parts movable.

- *Make designers 'To be the customers'.*
- *Make marketing people temporarily be purchasing agents and vice versa.*
- *Overcome reluctance of dissatisfied customers to complain. Pursue the full story from dissatisfied customers, get them really talk.*

C. Turn an object, process, or system 'upside down'.

- *Manage customer stock inventory for Just-In-Time delivery.*
- *Manage complaints handling system, which proactively encourages customers to complain.*
- *Get customers to determine price by themselves.*

Principle 14. Spheroidality

A. Instead of using rectilinear parts, surfaces, or forms, use curvilinear ones; move from flat surfaces to spherical ones; from parts shaped as a cube (parallelepiped) to ball-shaped structures.

- *Have rounded personalities to provide customer service.*
- *Smooth corners during negotiations.*
- *Use smoothing technique for conflict resolution – emphasize areas of agreement, de-emphasize areas of disagreement, seek a joint problem solving opportunity.*
- *Set rounded price figures.*

B. Use rollers, balls, spirals, domes.

C. Go from linear to rotary motion, use centrifugal forces.

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Kapat ve kabul et

- Utilize rolling forecast of customer purchase or service orders.
- Use round-robin fashion of idea submission at nominal group technique for resolving customer issue.

Principle 15. Dynamics

A. Allow (or design) the characteristics of an object, process, system, or external environment to change to be optimal or to find an optimal operating condition.

- Adapt to highly competitive business environment with dynamic customer needs and steadily increasing expectations.
- Steady increase versatility of products or services.
- Match business to individual customer demands.
- Utilize flexible policy for price vs purchased quantity.
- Set adjustable season prices.

B. Divide an object or system into parts capable of movement relative to each other.

C. If an object, process, or system is rigid or inflexible, make it movable or adaptive.

- View customer satisfaction as never ending challenge.
- Consider customer perception and expectation of product or service quality as a moving target.
- Utilize electronic trade with mobile purchase or service delivery to client home.

Principle 15 (inverted). Static State

- 'Reduce variation' (W.E. Deming) to keep it within customer specified limits.

Principle 16. Partial or Excessive Action

A. If 100 percent of an objective is hard to achieve using a given solution method then, by using 'slightly less' or 'slightly more' of the same method, the problem may be considerably easier to solve.

- Under-promise and over-deliver to avoid customer dissatisfaction.
- Nurture customer needs using 'Saturation' advertising by all media techniques.
- Slightly embellish product or service features in advertisement.
- Compromise at conflict resolution.
- Quote more to allow price reduction during negotiations.
- Use 9, 99, 999, etc. price figures.
- Utilize discounts.
- Provide extra product quantity or extra service as a bounty.

Principle 16 (inverted). "All or Nothing" (W.E. Deming)

- Establish 'Six Sigma', 'Zero Defects' (P.B.Crosby) quality goals.
- Set zero price for overdue delivery (Pizza Hut).

Principle 17. Another Dimension

A. Move an object or system in two- or three-dimensional space.

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Kapat ve kabul et

- Utilize multiple sources of information at marketing research.
- Conduct multi-dimensional customer surveys with matrix tabulation of survey results.
- Use matrix diagrams for FMEA, FTA, 8D Summary, House of Quality (QFD).

B. Use a multi-story arrangement of objects or systems instead of a single-story arrangement.

- Understand customer needs hierarchy pyramid: 'Basic physical, safety and security, family and social, ego and esteem, self-awareness and self-actualization' (A. Maslow, D. McGregor).
- Establish multi-level marketing and sales network.

C. Tilt or re-orient an object or system, lay it on its side.

- Utilize advantage of flat organization structure – fewer layers between management and customers.

D. Use 'another side' of a given area.

- Internalize the values of customer focus by all organization employees.
- Make marketing people temporarily be purchasing agents and vice versa.
- Interview both won and lost customers.
- Print bounty coupon on another side of purchase check.

Principle 18. Mechanical Vibration

A. Cause an object or system to oscillate or vibrate.

- Periodically re-energize continuous improvement initiatives ('Enthusiasm injections').
- Initiate third party external assessment.
- Make a fuss over customers, which have experienced a problem with product or service, in order to re-enforce their positive feeling to a level greater than that where no problem had occurred.

B. Increase its frequency (even up to the ultrasonic).

- Frequently communicate with customer in multiple modes.

C. Use an object's or system's resonant frequency.

- Probe for exact customer payment limit during price negotiations.

D. Use piezoelectric vibrators instead of mechanical ones.

E. Use combined ultrasonic and electromagnetic field oscillations. (Use external elements to create oscillation/vibration).

- Bring new-blood/new challenge into a customer service team.

Principle 19. Periodic Action

A. Instead of continuous action, use periodic or pulsating actions.

- Periodically repeat advertisement for stable business image support.

B. If an action is already periodic, change the periodic magnitude or frequency.

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Kapat ve kabul et

- *Institute monthly and weekly customer communication in addition to annual survey.*
- *Launch lot by lot manufacturing of small customized series.*

C. Use pauses between impulses to perform a different action.

- *Apply synchro -marketing for periodical or season customers demand.*
- *Fill pauses during negotiations.*
- *Use pauses and breaks in TV and radio programs for advertisement.*

Principle 20. Continuity of Useful Action

1. Carry on work continuously; make all parts of an object or system work at full load, all the time.

- *Strive for continual survival at the marketplace.*
- *Create organization trademark and preserve brand image.*
- *Establish long-term business alliances with customers.*
- *Strive for customer retention.*
- *Nurture customer loyalty.*
- *Be aware that satisfaction of customer wants, needs and expectations is never ending challenge.*
- *Use customer stereotype.*
- *Create customer standards based on tradition.*
- *Provide 24 hours per day service.*

B. Eliminate all idle or intermittent actions or work.

- *Operate re-marketing and supporting marketing for steady customers demand.*
- *Employ multi-skilled personnel at bottleneck functions to avoid breaks or delays in customer service.*

Principle 21. Skipping

A. Conduct a process, or certain stages (e.g. destructive, harmful or hazardous operations) at high speed.

- *Get through money losing processes quickly (e.g. sell-offs).*
- *Promptly resolve conflict situation.*

Principle 21 (inverted). Lagging

- *Be aware of lagged consumer reaction to advertisement.*

Principle 22. “Blessing in Disguise”

A. Use harmful factors (particularly, harmful effects of the environment or surroundings) to achieve a positive effect.

- *Use customer dissatisfaction source as a valuable feedback and opportunity for improvement (e. g. complaint, claim, refund, recall, return, replacement, downgrade, warranty cost, litigation).*
- *Customers whose complaints are handled properly are more loyal than customers who never had a complaint.*

▪ *The most loyal customer is a dissatisfied customer who later has all of his needs met.*

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Kapat ve kabul et

B. Eliminate the primary harmful action by adding it to another harmful action to resolve the problem.

- *Eliminate fear of change by introducing fear of competition.*

C. Amplify a harmful factor to such a degree that it is no longer harmful.

- *Apply accelerated testing (burn-in, voltage stress, thermal shock, etc.) for screening out parts prone to failure at infant mortality period.*

Principle 22 (inverted). “Cursing in Disguise”

- *Be wary of rare customer complaints. This could indicate a lack of customer candor and unwillingness to share information.*
- *Avoid advertisement saturation (e.g. web ‘spam’).*

Principle 23. Feedback

A. Introduce feedback (referring back, cross-checking) to improve a process or action.

- *Listen ‘Voice of the Customer’ in multiple ways (survey, visit, report, focus group, interview, mail, satisfaction feedback form, etc).*
- *Institute customer complaints resolution and response system.*
- *Establish product returns and field failures analysis system.*
- *Enlist customers into design process.*
- *Utilize organization guarantees to get feedback data on how products or services fail to meet customer needs.*

B. If feedback is already used, change its magnitude or influence.

- *‘You must take the customer’s skin temperature every day’ (Konosuke Matsushita).*
- *Establish toll-free telephone numbers for consumer communication.*
- *Introduce feedback buttons and attendees counting on advertisement website.*
- *Utilize bar-codes system in supermarkets to gathers information for future marketing decision making.*

Principle 23 (inverted). Feed-forward

- *‘Predict and compare’ (W.E.Deming).*
- *Hire experts for marketing research and forecasting.*
- *Anticipate customer future needs – the ideal basis for customer loyalty.*
- *Utilize Anticipatory Failure Determination (AFD) for product reliability prediction.*

Principle 24. Intermediary

A. Use an intermediary carrier article or intermediary process.

- *Region sales offices.*
- *Intermediate customers: wholesaler, distributor, retailer.*
- *Export/import, transportation and delivery agencies.*
- *Distribution systems (e.g. FedEx, UPS, DHL).*

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Çerezleri yönetmek için: [Gizlilik ve Çerez Politikası](#)

Kapat ve kabul et

B. Merge one object or system temporarily with another (which can be easily removed).

- *Hire the best professional consultant for marketing or advertising.*
- *Use neutral third party (arbitrator) during difficult negotiation.*
- *Introduce moderator to a focus group.*

Principle 24 (inverted). Direct Contact

- *On-line web marketing and sales.*
- *Survey without interviewer (mail, e-mail, website).*
- *Customer visit by CEO.*

Principle 25. Self-Service**A. Make an object or system serve itself by performing auxiliary helpful functions.**

- *Conduct organization self-assessment.*
- *Institute self-benchmarking and self-competing.*
- *Get customers to advertise the organization's products or services.*

B. Use waste (or lost) resources, energy, or substances.

- *Re-hire retired customer service professionals.*
- *Get packaging containers back from the customers for multiple use.*
- *Re-cycle packaging materials.*

Principle 26. Copying

A. Instead of an unavailable, expensive, fragile object or system, use simpler and inexpensive copies.

- *Enter the market with generic product instead of brand product (e.g. drugs).*
- *Benchmark competitors' products or services.*

B. Replace an object, process, or system with optical copies.

- *Use electronic database instead of paper records.*
- *Conduct video-conferencing with customers instead of physical travel.*
- *Utilize numerical simulations and virtual modeling.*
- *Franchise organization's trademark, logo.*

C. If optical copies are used, move to IR or UV (Use an appropriate out of the ordinary illumination and viewing situation).

- *Consider customer satisfaction as an indicator of organization's business well-being.*
- *Evaluate customer satisfaction using multiple techniques.*
- *Get customers and the organization to benchmark each other.*
- *Respond to perceived customer needs.*

Principle 26 (inverted). Original

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Kapat ve kabul et

Principle 27. Cheap Short-Living Objects

A. Replace an expensive object or system with a multiple of inexpensive objects or systems, compromising certain qualities (such as service life, for instance).

- *Subcontract non-core business activities.*
- *Use cheap disposable packaging materials and containers.*
- *Hire temporary staff (e.g. students) for telemarketing, phone survey, etc.*
- *Utilize vouchers, coupons, tokens for sales or service promotion.*
- *Lease expensive goods.*
- *Sale cheap second-hand goods.*

Principle 28. Mechanics Substitution

A. Replace a mechanical means with a sensory (optical, acoustic, taste or smell) means.

B. Use electric, magnetic and electromagnetic fields to interact with the object or system.

C. Change from static to movable fields, from unstructured fields to those having structure.

- *Electronic communication.*
- *Electronic trade.*
- *Electronic auction.*
- *Electronic tagging.*
- *Electronic cards for demographic data collection at market research.*
- *Telemarketing.*
- *Computerized interview.*
- *Website attendees counting.*
- *Use of multiple media techniques (photo, audio, video, TV, etc.) for customer presentation.*

Principle 29. Pneumatics and Hydraulics

A. Use gas and liquid parts of an object instead of solid parts (e.g. inflatable, filled with liquids, air cushion, hydrostatic, hydro-reactive).

- *Introduce 'breathing spaces' into contracts.*
- *Expand sampling during survey.*

Principle 30. Flexible Shells and Thin Films

A. Use flexible shells and thin films instead of three-dimensional structures.

- *Regard a customer service employee as a flexible shell of the organization.*
- *Be cautious of 'Pacing on thin ice' during difficult negotiations.*

B. Isolate the object or system from the external environment using flexible shells and thin films.

- *Use trade secret methods to shield organization's proprietary 'Know-hows' from general knowledge.*

Principle 31. Porous Materials

A. Make an object or system porous or add porous elements (inserts, coatings, etc.).

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Kapat ve kabul et

- *View a customer-facing layer as a porous membrane, which filters information flow both into and out of the organization.*

B. If an object or system is already porous, use the pores to introduce a useful substance or function.

- *Empower customer-facing layer employees.*

Principle 32. Color Changes

A. Change the color of an object, system, or external environment.

- *Create a strong brand image through use of ‘Corporate colors’.*
- *Utilize different colors in mistake-proofing (Poka-Yoke) to prevent unintended use.*

B. Change the transparency of an object, system, or external environment.

- *Get customer to make stock inventory transparent for Just-In-Time delivery.*
- *Make packaging transparent to enable product self-advertising.*
- *Introduce smoke-screen misinformation to disguise confidential (e.g. R&D) activities.*
- *Switch position from transparent (encouraging trust) to opaque (keeping secrets) and vice versa during negotiations.*

Principle 33. Homogeneity

A. Make objects interact with a given object of the same material (or material with identical properties).

- *Hire local people to acquire cultural knowledge of local customers.*
- *Use the same brand name for homogeneous product group.*
- *Divide customers to homogeneous sectors (clusters).*
- *Include customers (consumers) from the sector being surveyed into focus groups for survey.*

Principle 34. Discarding and Recovering

A. Make portions of an object or system that have fulfilled their functions go away (discard by dissolving, evaporating, etc.) or modify them directly during operation.

- *Subcontract marketing, sales, or advertisement agencies.*

B. Conversely, restore consumable parts of an object or system directly in operation.

- *Warranty – commitment of manufacturer to repair or replace any part that fails during the life of product.*

Principle 35. Parameter Changes

A. Change an object’s or system’s physical state (e.g. to a gas, liquid, or solid).

- *Establish virtual shopping.*
- *Institute on-line web catalogs.*

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B. Change the concentration or consistency
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Kapat ve kabul et

C. Change the degree of flexibility.

- *Use special offers for sales or service promotions.*

D. Change the temperature.

- *Initiate new challenges for the customer service team.*

E. Change other parameters.

- *Switch marketing of product or service to non-traditional customers.*
- *Change traditional names (e.g. the quality department in Samsung is called 'Customer Satisfaction Team').*
- *Sell non-material attributes (e.g. satisfaction of cultural needs, image, self-esteem, etc.).*

Principle 36. Phase Transitions**A. Use phenomena occurring during phase transitions.**

- *S-curve for marketing and sales evolution – different product or service life stages: 'Problematic child', 'Star', 'Milky cow', 'Outsider'.*

Principle 37. Thermal Expansion**A. Use thermal expansion (or contraction) of materials.****B. If thermal expansion is being used, use multiple materials with different coefficients of thermal expansion.**

- *Expand or contract marketing efforts depending on the product or service 'hotness' – rate of sales and profitability.*
- *Include 'hard' person and 'soft' person into a customer negotiation team.*

Principle 38. Boosted Interactions**A. Replace common air with oxygen-enriched air (enriched atmosphere), B. Replace enriched air with pure oxygen (highly enriched atmosphere), C. Expose air or oxygen to ionizing radiation, D. Use ionized oxygen, E. Replace ozonized (or ionized) oxygen with ozone (atmosphere enriched by 'unstable' elements).**

- *Introduce obsession with customer-perceived quality and desire to delight customers into the organization.*
- *Hire highly creative individuals who understand 'The voice of the customer'.*
- *Get customers excited about a product or service by giving them ownership of the change.*
- *Achieve 'Wow!' effect by exceeding customers' expectations and providing them with advantage over their competitors.*
- *Overcome reluctance of dissatisfied customers to complain.*

Principle 39. Inert Atmosphere**A. Replace a normal environment with an inert one.**

- *Arrange anonymous survey or interview.*
- *Use neutral, indifferent tonality of questions at survey and interview.*

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- Be aware of customer service employee indifference as one of the major reasons for customer detection.

B. Add neutral parts, or inert additives to an object or system.

- Use neutral third party during difficult negotiations.

Principle 40. Composite Structures

A. Change from uniform to composite (multiple) structures.


- Combine high risk with low risk marketing strategy.
- Establish multi-disciplinary customer service teams, including different employee personality types.
- Employ multi-skilled ('Renaissance') people at customer interface positions.



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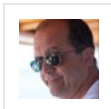
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