Contingency Planning

- What is a contingency?
- Purpose of contingency management
- Steps of contingency planning

We live in a VUCA (Volatile, Uncertain, Complex and Ambiguous) world. The COVID-19 pandemic is a classic Black Swan[1] event – an extremely rare and unpredictable event with severe consequences and cannot be planned for. On the contrary, a White Swan event is a highly certain event with an estimable impact. Planning for such events is easy. It is the Grey Swan events which are crucial for contingency planning. A Grey Swan Event is a significant event which is unlikely to happen, but still has a possibility of occurrence. And if the possibility were to become a reality, it would cause significant disruptions. It has the power to prevent a business from functioning to its full capabilities. And so, businesses have to be prepared to answer the crucial question: "What if?".

What is a contingency?

A contingency is something that might possibly happen in the future, usually causing problems or making further arrangements necessary[2]. It is

- A possibility that must be prepared for; a future emergency.
- Something that depends on something else in order to happen.

Purchasing an inverter for uninterrupted supply of electricity in case of power failure is planning (inverter) for the contingency (power failure). Most large businesses have cash reserves as a *contingency* for bad debts.

A contingency is defined as "a future event or circumstance that is possible but cannot be predicted with certainty," either on a large scale, such as a natural disaster, or a small scale, such as employee theft[3].

Contingency Plan and Contingency Planning:

The most significant reason to justify contingency planning is the seriousness and severity of the consequences was the contingency to be realized. If a contingency becomes an actuality and does not cause any ill effects, most would not bother to plan for such contingencies. Contingencies can also have positive outcomes; a sudden rainfall can lead to a rush for hot food stalls, and if unprepared, can lead to lost potential sales. It thus makes common sense to plan in advance for such contingencies by creating a structured contingency plan.

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[1] "The Black Swan: The Impact of the Highly Improbable" – authored by NassimTaleb. Taleb has however contradicted the terming of the pandemic as a Black Swan : https://www.newyorker.com/news/daily-comment/the-pandemic-isnt-a-black-swan-but-a-portent-of-a-more-fragile-global-system

[2] https://dictionary.cambridge.org/dictionary/english/contingency

[3] https://www.lucidchart.com/blog/business-contingency-plan

A **contingency plan** is a course of action designed to help **an organization** respond effectively to a significant future event or situation that may or may not happen. A **contingency plan** is sometimes referred to as "**Plan** B," because it can be also used as an alternative for action if expected results fail to materialize[4]. Contingency plans are backup plans that businesses activate only when a disaster or unforeseen situation disrupts the operations of the company or put its employees at risk[5].It is a plan for a situation and outcome when the original plan doesn't work or can't be implemented. One can also look at a contingency plan as a tool for managing risk posed by the contingencies.

Purpose of contingency management in business:

Some business resources and functions are critical to an organization's success and continued operations. Therefore, it is essential that an organization's processes operate effectively without excessive interruption. Contingency management supports this objective through the creation of plans, procedures and technical measures that can enable the efficient recovery of business operations following a business disruption or disaster. Contingency planning identifies interim measures to respond to threats and recover from a business or system disruption.[6].A contingency plan is a proactive strategy that describes the course of actions or steps the management and staff of an organization need to take in response to an event that could happen in the future. It plays a significant role in business continuity, risk management and disaster recovery[7].

The **purpose of a contingency plan** is to allow an organization to return to its daily operations as quickly as possible after an unforeseen event. The **contingency plan** protects resources, minimizes customer inconvenience and identifies key staff, assigning specific responsibilities in the context of the recovery.

A contingency plan can cover the following:

- Scenario – the most damaging scenarios to plan for
- Trigger – the specific even which shall put the contingency plan into action
- Response – the action to be taken
- Who to inform – identify the people who need to know what happened
- Key responsibilities – affix responsibility for elements of the plan and expected outcomes
- Timeline – state actions with defined time durations

An example[8] of a contingency for a minor event is available at :
https://www.mindtools.com/media/Diagrams/Contingency_Planning_Example1.pdf

[4]https://whatis.techtarget.com/definition/contingency-plan#:~:text=A%20contingency%20plan%20is%20a,expected%20results%20fail%20to%20materialize.
[5]https://www.rockdovesolutions.com/blog/what-is-a-business-contingency-plan-how-to-create-one
[6]https://smallbusiness.chron.com/contingency-management-business-23285.html
[7]https://creately.com/blog/business/business-contingency-plan-templates/
[8]https://www.mindtools.com/pages/article/newLDR_51.htm

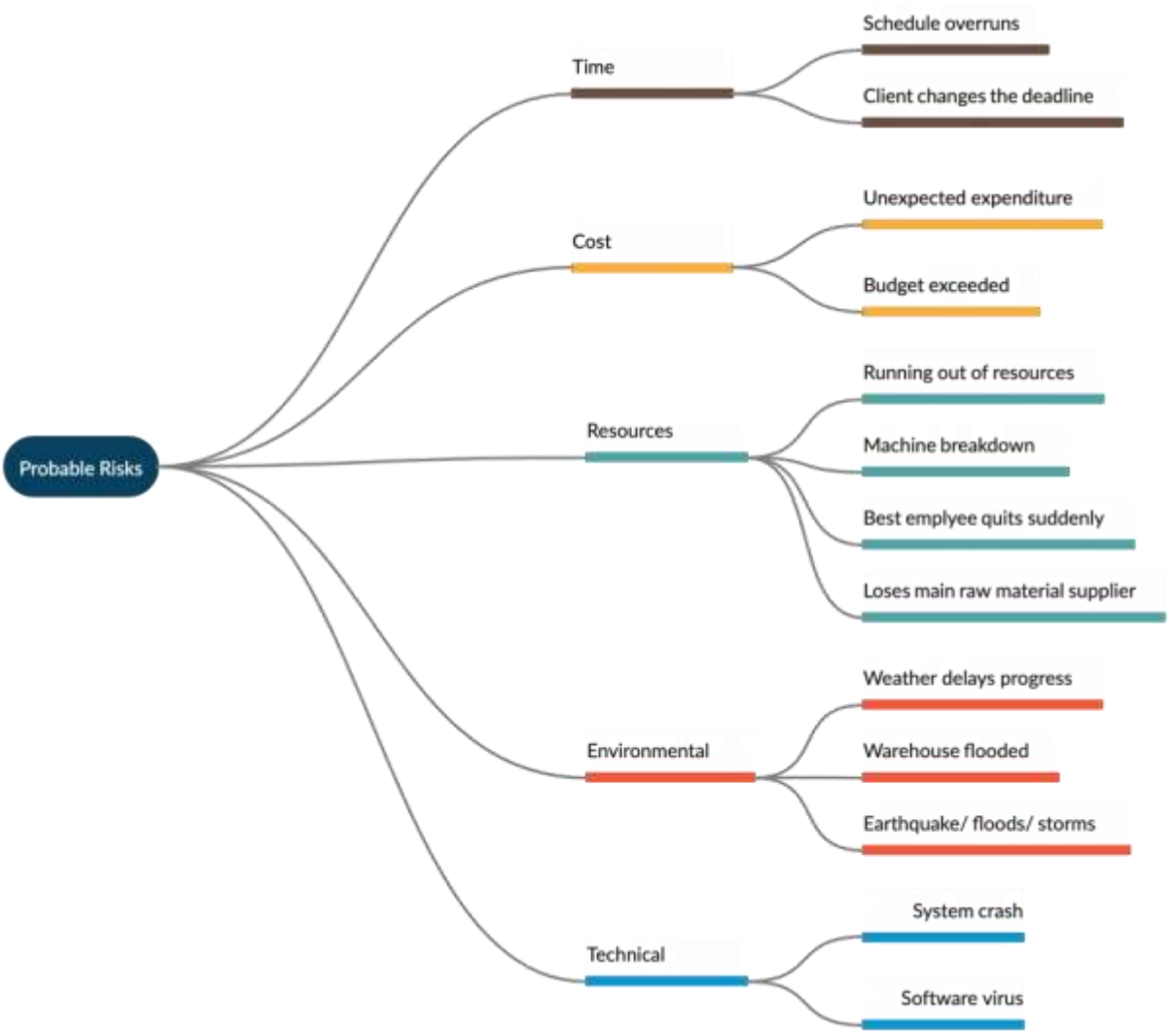
Steps of contingency planning:

There are multiple approaches and models available to undertake a comprehensive contingency planning exercise. However, the basic process remains common – assess the risks, develop a priority list of the risks, develop the contingency plan and implement it.

1. Risk Assessment:

   Identify the major events or scenarios which are likely to disrupt the normal course of business. The scenario can impact revenues, profits, IT systems, employees, machines, key resources, etc.

   The risk assessment should be done by a team involving people from all departments, and all possible scenarios should be assessed. Along with the scenario, a brainstorming should also be done to list down the triggers of each scenario. It is the trigger which shall be an objective signal to kick the plan into action. An example of a map envisaging possible risk scenarios is mentioned below:



Source: https://creately.com/blog/business/business-contingency-plan-templates/

2. Risk Prioritization:

Not all risks have the same probability of occurrence and the same severity of impact. It would be prudent to plan for the most 'serious' risks first.
The risk impact probability chart[9] is an easy tool in evaluating and prioritizing risks:

A more elaborate risk evaluation can be done with the Risk Impact Scale[10]which will help to estimate the likelihood that an event will occur.

3. Develop the contingency plans:
   This includes a detailed step-by-step guide that outlines:
   - the specific response
   - the responsible people for the response
   - key responsibilities

[9]https://creately.com/blog/business/business-contingency-plan-templates/
[10]https://www.lucidchart.com/blog/business-contingency-plan

- timelines that highlight when the responses are to be executed

4. Share and Maintain the Plan:
   The next step is to communicate the plan to all those who could be impacted in case of the contingency. Make the plan accessible to all employees and stakeholders. Ensure a periodic review of the plan to keep it updated. The review should be at the personnel, operational and technological levels.

Networking Skills for Successful Careers

- Concept and Significance
- Types of networking
- Art of building networks

Concept and Significance:

Networking is the exchange of information and ideas among people with a common profession or special interest, usually in an informal social setting[11]. It is the exchange of information or services among individuals, groups, or institutions; specifically: the cultivation of productive relationships for employment or business[12]. Networking is about establishing and nurturing long-term, mutually beneficial relationships with the people you meet[13], at events, sales or dealer meets, in a stadium or on a plane.

According to Casciaro et al. (2016)[14], research shows that professional networks lead to more job and business opportunities, broader and deeper knowledge, improved capacity to innovate, faster growth, and greater status and authority.

Networking helps a professional keep up with current events in the field, and develops relationships that may boost future business or employment prospects.Networking is a great opportunity to exchange best practice knowledge, learn about the business techniques of your peers and stay abreast of the latest industry developments. A wide network of informed, interconnected contacts means broader access to new and valuable information [15] .The individual can have access to different perspectives and can gain from insights coming from a neutral source.

Building networks is not an easy task, as it requires one to develop cordial relations with complete strangers, accept rejections and be patient for the long run. This builds self-confidence and develops high self-esteem in the individual. There is also a strong realization about the worth of relationships in an individual, and this gets reflected in a more amicable and accommodating nature.

Networks are also a long-term, intangible asset for an individual. Wherever the individual goes, the network stays with him / her. Certain networks can lead to long-term social relationships as well, thus enriching the individual's life professionally as well as personally.

The worth of a network is seldom realized more than when it opens up doors to a job or career one loves. Networks constantly keep a watch on their members, and would always trust someone they know for that dream job.

Students can be asked to realize their own networking skills by attempting this quiz:

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[11] https://www.investopedia.com/terms/n/networking.asp
[12] https://www.merriam-webster.com/dictionary/networking
[13] https://in.topresume.com/career-advice/importance-of-networking-for-career-success
[14] https://hbr.org/2016/05/learn-to-love-networking
[15] https://www.michaelpage.com.au/advice/career-advice/career-progression/benefits-networking

https://www.proprofs.com/quiz-school/story.php?title=test-your-networking-skills
https://www.highspeedtraining.co.uk/hub/networking-skills-quiz/

Types of Networking:

Business networking is an effective low-cost marketing method for developing sales opportunities and contacts, based on referrals and introductions - either face-to-face at meetings and gatherings, or by other contact methods such as phone, email, and increasingly social and business networking websites.Business networking offers a way to reach decision-makers which might otherwise be very difficult to engage with using conventional advertising methods[16].

1. Strong contact networks
2. Casual contact networks
3. Online networks
4. Community service clubs
5. Professional Associations

1. Strong Contact Networks:

   These groups comprise of people from different professions. These groups are not so competitive, as they promote synergy and collaboration rather than rivalry. There are good chances of finding customers and suppliers for the business as well. These groups may be smaller than other networking groups, but they are more effective as there is closer association between individuals from allied industries. BNI is an example of strong contact networks. Often, only one of very few individuals from a profession are allowed membership, thus ensuring that competition does not develop.

   Activity: Students can come in contact with any member(s) of such strong contact groups and interview them about the way members interact within the group and how the group has been beneficial for their businesses.

2. Casual contact networks:

   These networks are bigger than strong contact networks. The network comprises normally of people of the same profession and does not meet so often. The primary reason to join such groups is to stay in touch with the business fraternity, and not get isolated from others. This also helps during situations which need industry representations. The meetings are less frequent and more informal. Chambers of commerce are an example of casual contact networks.

   Activity: Students can be asked to identify some casual contact networks through their family, friends and general inquiry. They can understand the nature and functioning of those groups.

[16] https://www.businessballs.com/building-relationships/networking/

3. Online / social media networks:

   Someone once said that LinkedIn is the Facebook for professionals. This statement emphasizes the importance of nurturing and maintaining networks online. Platforms like LinkedIn and Twitter have become very crucial for business. There are still more formal online groups, solely for professional purposes, which use chatrooms and video conferencing to connect with people globally. One should choose these groups wisely, as there are many online groups available and joining many without being able to participate effective won't serve any purpose. The online presence and behaviour expected in these groups is highly professional and formal. Reddit allows one to join specific communities, but strictly monitors the behaviour of the community members.

   Activity: Students should be exposed to LinkedIn specifically, and create an online account if they don't have one on LinkedIn and Twitter.

4. Community service clubs:

   These networks work for humanitarian causes. The objective is to give back to the society. Though the networks are not created for professional purposes, like-minded professionals do identify and explore business opportunities within the group. It also enhances the credibility of an individual joining the group, as he or she associates with a noble cause, thus rising in stature and fame. Rotary International is a good example of a combination of strong contact networks and community service clubs. While admission to each Rotary Club is carefully done, the major purpose and activities undertaken are humanitarian in nature.

5. Professional associations:

   A group like Retailers Association of India (RAI) or SIAM (Society of Indian Automobile Manufacturers) is an example of a professional association. The network is created for a specific profession and includes businesses or individuals only from that profession. The main purpose is collaboration, strength in industry representation and mutual benefits. One can grow in such networks by solving others' problems and issues, suggesting ways to increase the industry market base and recommending measures for better practices within the industry.

   Being a part of such an organization can provide great opportunities to expand your career vertically and horizontally. Additionally, these networks can help you maintain key contacts with potential client sand target markets[17].

   Activity: Students can be given a task to identify prominent professional / trade associations for specified professions / businesses / industries.

[17] https://www.businessworldit.com/startups-funding/4-types-of-business-networking-opportunities-to-consider/

Art of building networks:

Networking is an art, as what works for one person may not necessarily work for others. Each person can and does develop his or her own unique approach to identify, build, nurture and maintain networks. Some of the skills which are crucial for the art of building networks are discussed herewith.

- Have total clarity of goals which you want to achieve through networking. This shall help in selecting which networks to associate with.
- Be an extrovert. Be ready to visit new places and talk to strangers.
- Probe. Ask questions. This shall show your interest in the group.
- Be a good conversationalist. Be a good listener. Learn the art of listening patiently and sincerely.
- Empathize. Be genuinely interested in others problems and progress. Support them. Do not be superficial. People can see through your fake behaviour and shall never trust you again. It shall hurt your reputation forever.
- Always be ready to help others. Spare some time in being resourceful for others, even if it is without any immediate benefit or reciprocation.
- Develop a unique elevator speech. An elevator speech is one you use when you introduce yourself to a potential connection. There are many resources to guide you on how to prepare your own elevator speech[18]. Students should create their own elevator speech and practice it and present it in the class.
- Be reliable. Follow up. Fulfil the commitments made. Create your reputation as a dependable person.
- Maintain a work-life balance. Too much time spent on networking can create undue stress from personal front. A balanced lifestyle will provide enthusiasm and energy to expand networks.
- Integrity. Networks sustain on trust and reputation. Be ready to comprise short term gains. Do not lose your integrity for any temptations. Networks are very hard to build and very easy to destroy.

[18] https://www.businessballs.com/building-relationships/networking/

Design Thinking

- What is Design Thinking?
- Significance of Design Thinking in Management
- 5 steps of Design Thinking
    - Empathize
    - Define
    - Ideate
    - Prototype
    - Test
- How to become a good Design Thinker? Visualization and story telling

What is Design thinking?

Begin the module by introducing the students to the following case:
https://www.designbetter.co/design-thinking/empathize (Embrace - the Infant Warmer)

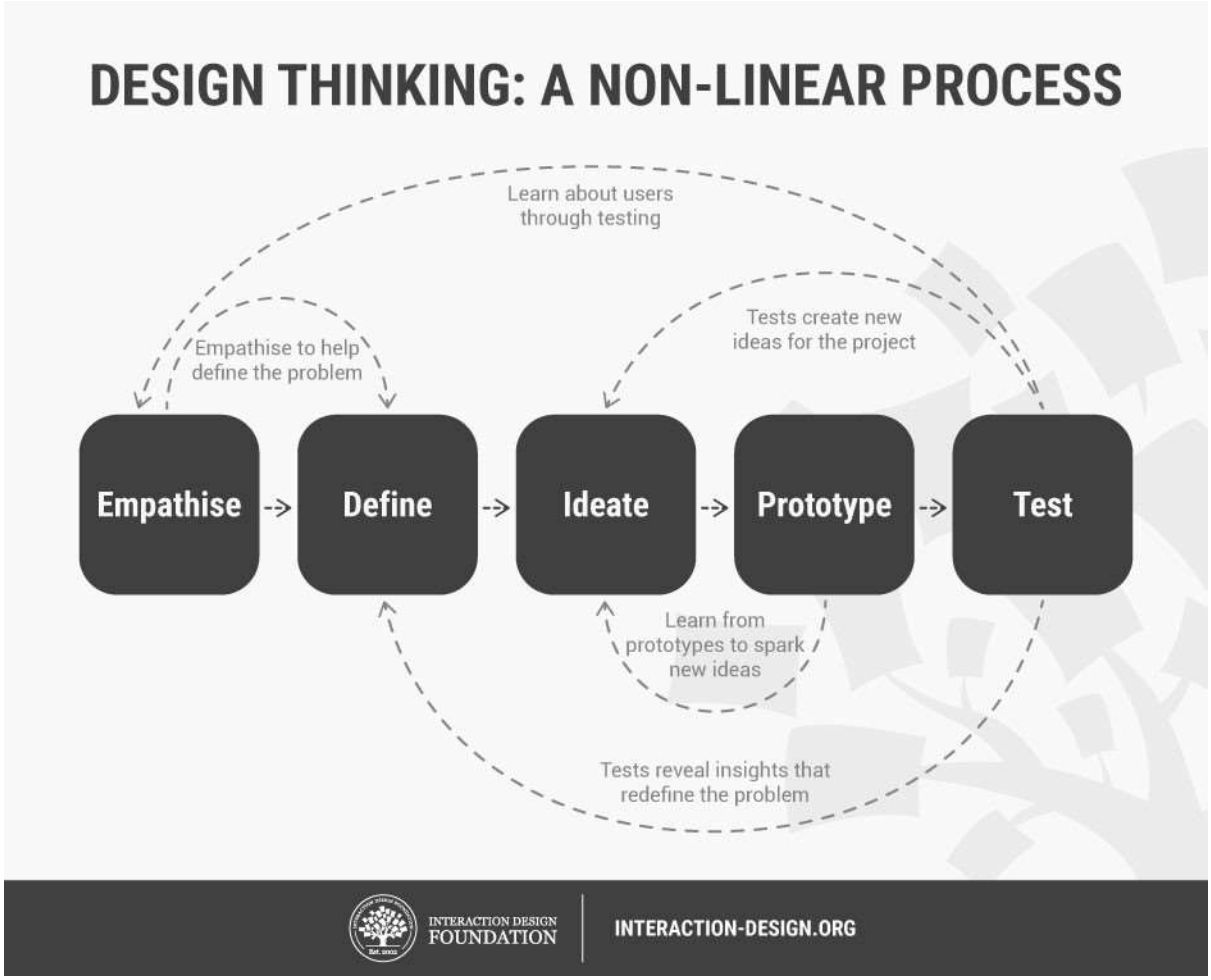
Steve Jobs famously said, "Most people make the mistake of thinking design is what it looks like. People think it's this veneer – that the designers are handed this box and told, 'Make it look good!' That's not what we think design is. It's not just what it looks like and feels like. Design is how it works[19]."

Design Thinking is a problem solving methodology especially well-suited for investigating ill-defined problems. It uses methods derived from the discipline of design to match people's needs with what is feasible and what a viable organizational strategy can convert into customer/stakeholder value in a financially sustainable way. It was initially proposed as a way for corporations to more quickly, creatively, and effectively develop new offerings but has since been further adapted to address issues in the public and social sectors as well.

Design thinking is about thinking. It is a way of thinking, an approach centered on the problems faced by a user and aimed at finding alternative solutions. Design Thinking revolves around a deep interest in developing an understanding of the people for whom we're designing the products or services. It helps us observe and develop empathy with the target user. Design Thinking helps us in the process of questioning: questioning the problem, questioning the assumptions, and questioning the implications. Design Thinking is extremely useful in tackling problems that are ill-defined or unknown, by re-framing the problem in human-centric ways, creating many ideas in brainstorming sessions, and adopting a hands-on approach in prototyping and testing. Design Thinking also involves ongoing experimentation: sketching, prototyping, testing, and trying out concepts and ideas. Design Thinking is often referred to as 'outside the box' thinking, as designers are attempting to develop new ways of thinking that do not abide by the dominant or more common problem-solving methods[20].

[19] https://www.nytimes.com/2003/11/30/magazine/the-guts-of-a-new-machine.html
[20] https://www.interaction-design.org/literature/article/what-is-design-thinking-and-why-is-it-so-popular

Design thinking is not a linear, one-way process. It operates in loops, reiterating the same steps again and again till a viable, feasible and desirable solution is attained. Knowledge is constantly questioned and acquired to redefine the problem and identify alternative solutions which were not apparent till now. The intention is to improve products and services by analyzing how users interact with them and investigating the conditions in which they operate.



Design thinking shifts the focus from a business-centric engineering solution (we invent a product based on a bunch of assumptions and cross our fingers that it will work for customers), to a customer-centric solution (we explore cultural phenomena, observe how people behave and think, gain insights into what they need, and design a product around that)[21].

[21] https://www.toptal.com/designers/product-design/design-thinking-business-value

Significance of design thinking in management:

Before looking at the tremendous role design thinking can play, let us have a look at the following case of AirBnB.

https://thisisdesignthinking.net/2015/05/airbnb-design-thinking-example/

Businesses exist to provide solutions to problems, through their products and services. However, as businesses grow, compulsions take them farther away from reality and their products and services are created more on assumptions than on concrete realizations. As a result, projects fail to deliver, products are rejected and huge losses are incurred. Design thinking provides dual benefits – creatively understanding the problems and providing insights and tools to build appropriate solutions.

Design thinking and HR:

As the HR function is rapidly evolving and adapting to new ways of engaging the workforce, design thinking can be very helpful in figuring out improvement areas in recruiting and hiring strategies.

Design Thinking focuses on problems that are complex by nature and on problems that affect people. It helps to bring the 'Human' back into HR. It empowers HR to re-imagine every aspect of work: the physical environment; how people meet and interact; how managers spend their time; and how companies select, train, engage, and evaluate people."

Design thinking to focus on Employee Experience:

It is top priority for HR-professionals to heighten the employee engagement. Design thinking offers all kind of tools to create inspiring workplaces, new roles, user-friendly IT systems and other ways of cooperation in which the employee is at the center. The aim is to improve engagement, creativity and productivity. Empathy is a basic requirement for this.

Questions addressed are for example: how can older and younger colleagues learn from each other, how we can accelerate recruitment, how can we reduce staff turnover in the first six months, how can we retain talent, how to design a fair salary system etc.

Employees are overwhelmed with technology, applications, and a constant flood of information. Deloitte research shows that people collectively check their phones more than 8 billion times each day,[22] yet productivity is barely rising. To relieve the overwhelmed employee and develop HR applications that can help manage complexity, HR must adopt design thinking, which puts the employee experience at the center. Design thinking moves HR's focus beyond building programs and processes to a new goal: designing a productive

[22] PR Newswire, "Deloitte survey: Americans look at their smartphones in the aggregate more than 8 billion times daily," December 9, 2015, www.prnewswire.com/news-releases/deloitte-survey-americans-look-at-their-smartphones-in-the-aggregate-more-than-8-billion-times-daily-300190192.html

and meaningful employee experience through solutions that are compelling, enjoyable, and simple. [23]

- Design thinking provides a means to focus on the employee's personal experience and to create processes centered upon the worker. The result: new solutions and tools that directly contribute to employee satisfaction, productivity, and enjoyment.
- HR departments should upgrade their skills to incorporate key design thinking concepts such as digital design, mobile app design, user experience design, and behavioral economics.

HR can leverage this Design Thinking approach creating cross-functional task-force teams to design experiences related to on-boarding, learning, candidate experience, performance management, recruiting and in general to every single HR practice.[24]

- Final Thoughts – Questions for HR designers:
- How can HR re-set its mindset to use Design Thinking?
- Would Design Thinking work in all HR functions?
- How do we know if our prototype is worth iterating on?
- How do we know which customers we should talk to first?
- How can HR use the human-centric design to design employee experiences?
- What does a great employee experience look like from the moment someone is hired until the moment they leave the company?

Design thinking and Marketing:

Marketing these days is less about money and more about connecting to people at the receiving end. Successful marketing campaigns make an emotional connect with the audience and touch their hearts[25].

Human-first approach to solve problems:

Often, marketers focus on the product features as the pathway to acquire and retain customers and tend to forget what problem they wanted to solve with the products. Empathy is the key to tap into real customer problems. You need to have an ability to listen, observe, and immerse in the experience. You can leverage design thinking tools like empathy mapping, buyer personas, and journey maps to uncover the customer pain points and opportunities. Post this you can prioritize resources and budgets in a manner to systematically shift the customer experience.

Use Divergent / Convergent thinking:"

[23] Design thinking By Josh Bersin, Marc Solow, Nicky Wakefield - https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2016/employee-experience-management-design-thinking.html

[24] https://www.digitalhrtech.com/design-thinking-disrupting-hr/

[25] https://medium.com/@abhijeetkotwal/design-thinking-for-marketing-campaigns-a9118f044aec

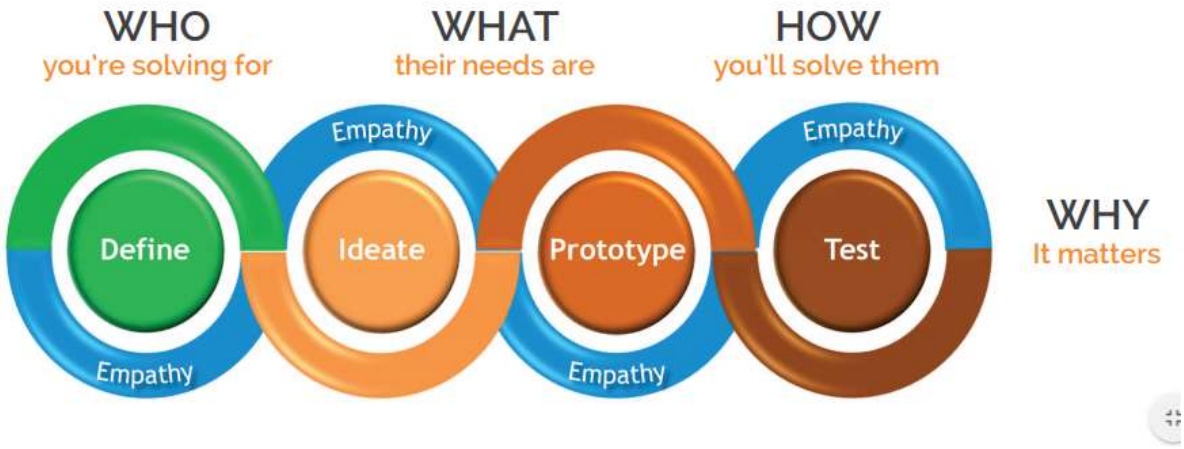
Divergent thinking is used to explore ideas and discover opportunities. It includes gathering a wide array of user stories to gain better understanding of the opportunity space and going for quantity and deferring judgement while brainstorming. Once you have a range of concepts or themes in front of you, use the focusing or convergent thinking methods to narrow down the choices to make informed decisions.

Design thinking and Finance:

Design thinking is a customer centric process used by designers for creative problem solving. Traditionally, finance process improvement initiatives are driven by cost reduction strategies. They are rarely strategized using customer insights. In the past few years, the role of the finance function has been rapidly changing from merely audit based to driving strategy. Corporate finance and financial services, disrupted by technology and endangered by the FinTech firms, are in unprecedented need of Design Thinkers who are able to anticipate customer preference shifts and innovate to respond to the ever-changing industry needs.

Finance has a large base of internal customers, across its function areas from source to pay, order to cash and record to reports. The design thinking methodology has the potential to drive efficiency and effectiveness in finance processes while positively impacting internal stakeholders. Common pain-points internal customers experience across finance processes are: • Multiple systems for each process • Lack of change control guidelines • Manual reporting mechanisms • Complex coding structures. These issues can be effectively dealt with Design Thinking Solutions.

Design Thinking in Finance Process



A design thinking framework for finance processes includes:

Empathize: This stage involves identifying which customers require a solution. This phase captures information to create an empathy map

Define: This step involves creating the mission statement to define the scope of the project comprising of key user issues. The final output should be to identify the exact problems using tools such as pain point analyses.

Ideate: The most critical phase, this step involves generating an exhaustive list of solutions and exploring all possible alternatives around the key levers such as digitization, Lean processes, analytics and reporting. The tools used might include insight generation, mind maps, and others

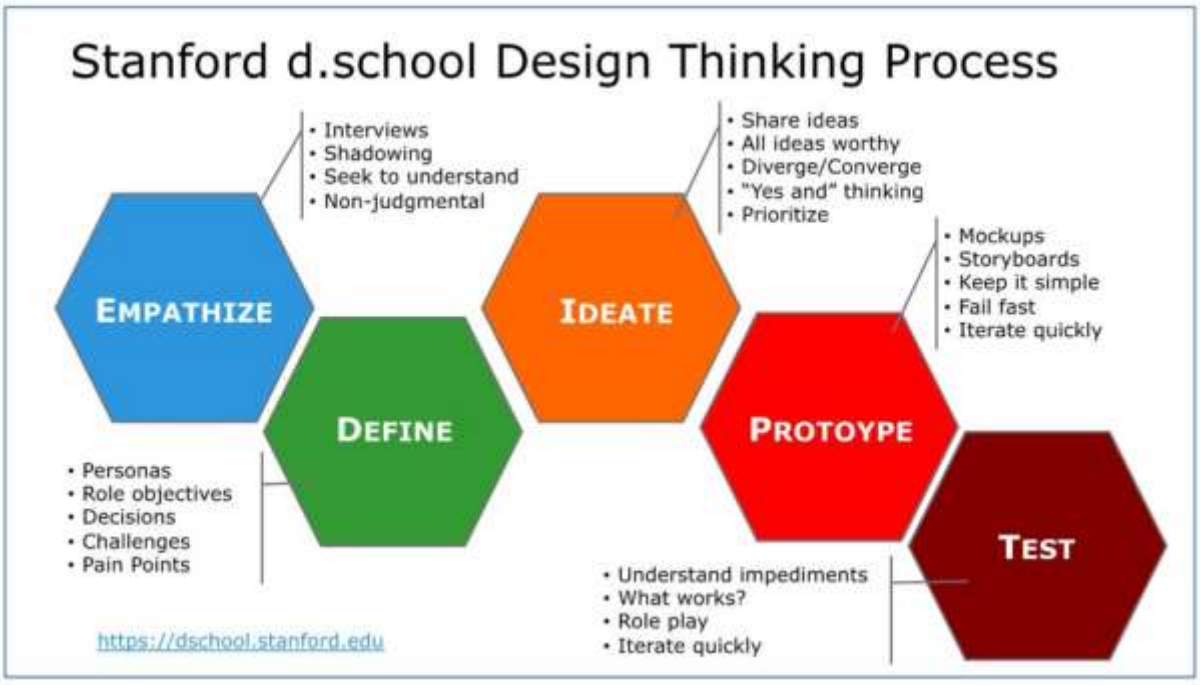
Prototype: This step involves translating the ideas into a tangible output to convey the ideas effectively via tools like process simulation

Test: This step involves floating the solution among customers and gathering feedback before rolling out the final solution. User Acceptance Testing (UAT) across all customer levels is the key to a successful design thinking project.

Source:

Subramanian, G. (n.d.). Design Thinking for Finance Processes. https://www.exlservice.com/resources/assets/library/documents/Design%20Thinking.pdf

Five steps of Design Thinking[26]:



Source: https://lvivity.com/design-thinking-process

1. Empathize:

   Empathy is the base and centerpiece for any human-centric process. It is also the first skill to be develop in design thinking. Being empathetic allows us to understand and share the same feelings that others feel, about their problems or situations. Simply put, this is where one understands people, the way they do things and why, their physical and emotional needs, how they think about the environment and the world, what are their beliefs and what is important and meaningful to them.

   Observing what people do and how they interact with their environment gives us clues about what they think and feel. It also helps us learn about what they need.The best solutions come outof the best insights into human behavior.

   - What is the person feeling?
   - What actions or words indicate this feeling?
   - Can you identify their feelings through words?
   - What words would you use to describe their feelings?

   For every solution developed, there are three assumptions:

   - The pain or dissatisfaction being experienced by the user
   - The overall solution to address this pain
   - Benefits accrued to the user through the solution

   How to Empathize?

[26] An Introduction to Design Thinking Process Guide, Institute of Design at Stanford.

Discovery – Enter the user's world and initiate contact with them. Learn about their difficulties, their unspoken needs and wants. Do not try to immediately suggest a solution to their problem – chances are they have already tried everything that you are thinking of as they have been living with the problem for a longer time. Instead, try to absorb what they are going through and most importantly, try to feel what they are feeling. Unless that happens, the magnitude and intensity of the problem cannot be realized by you, and chances of finding a near to perfect solution would always be less than optimum. Develop your intuition and emotional sensitivity to gain the right kind of insights.

Immersion – Immerse yourself in the life of the user by directly getting involved in their lives, activities and environment. Witness and observe the users, their behavior, their environment, body language, actions performed while engaging with the product / service, facial expressions, emotions, spoken words, etc. This involves true fieldwork in visiting the actual premises and environments of the relevant context.

Connection –Once you experience what the user experiences, you establish a connection with them. This is vital as it shall help you recall your own experience during later stages of the design thinking process.

Detachment – It is time to go back to the drawing board to start the next stage of developing ideas. The experiences in the first stage will lead to the development of multiple ideas which shall propel the process forward.

2. Define:

   This is the stage where it is necessary to define the feelings identified in the empathize phase. By defining the feelings, we can identify the main problems to be solved. The framing of the problem should be identifiable, positive, meaningful and actionable. It should inspire to search for solutions.The relationship between the empathize and define stages can best be described in terms of analysis and synthesis. In the empathize phase, we use analysis to break down everything we observe and discover about our users into smaller, more manageable components—dividing their actions and behaviour into "what", "why" and "how" categories, for example. In the define stage, we piece these components back together, synthesizing our findings to create a detailed overall picture[27].
   It is imperative to create a robust problem statement in this stage. A problem statement identifies the gap between the current state (i.e. the problem) and the desired state (i.e. the goal) of a process or product. The user's problem is an unmet need. By designing a solution that meets this need, you can satisfy the user and ensure a pleasant user experience[28]. The Define mode is critical to the design process because it results in your

[27] https://careerfoundry.com/en/blog/ux-design/stage-two-design-thinking-define-the-problem/
[28] https://careerfoundry.com/en/blog/ux-design/stage-two-design-thinking-define-the-problem/

point-of-view (POV): the explicit expression of the problem you are striving to address. More importantly, your POV defines the RIGHT challenge to address, based on your new understanding of people and the problem space.

There are many ways of defining the POV or problem statement, but some common ways of defining the design problem are:

- User perspective: "I am a young working professional trying to eat healthily, but I'm struggling because I work long hours and don't always have time to go grocery shopping and prepare my meals. This makes me feel frustrated and bad about myself."
- User research perspective: "Busy working professionals need an easy, time-efficient way to eat healthily because they often work long hours and don't have time to shop and meal prep."
- 4W's perspective (Who, what, where, why): "Our young working professional struggles to eat healthily during the week because she is working long hours. Our solution should deliver a quick and easy way for her to procure ingredients and prepare healthy meals that she can take to work[29]."

3. Ideate:

It is here that idea generation begins. There is no single method to generate ideas. This is where students will learn the difficulties and complexities in finding solutions, and will be able to empathize better with the potential users. One crucial skill to learn in this stage is to defer judgement from idea generation. This skill shall widen the horizon of the students, and enable them to think beyond their own realm. Some of the key ideation techniques:

- Analogies – comparing the problem situation with something you are familiar with
- Mindmapping–visual ideation technique, write a keyword in the center, then proceed to write all ideas related to the word, and proceed so on.
- Brainstorming – verbally intense discussions of ideas
- Bodystorming – physically experience a situation to generate new ideas
- Inquiry
- Brainwriting–write down ideas and suggestions before sharing with others
- Reverse thinking –Turn the problem into an exact opposite problem, and move backwards. For e.g. The question "how might we make our online courses more accessible?" could be changed to "how can we make it as difficult as possible for users to take our online courses?"

[29] https://careerfoundry.com/en/blog/ux-design/stage-two-design-thinking-define-the-problem/

4. Prototype:

   This is the stage where ideas are worked upon to create solutions – a product, a policy, a process or even a physical environment. A prototype is a simple experimental model of a proposed solution used to test or validate ideas, design assumptions and other aspects of its conceptualization quickly and cheaply, so that the designer/s involved can make appropriate refinements or possible changes in direction[30]. A prototype is necessary to prevent a faulty solution from going ahead and a feasible solution to be modified further. A very essential skill which students will learn through prototyping is resilience and perseverance. They will learn that failing is inevitable for success. And to rebound, they need to answer the following questions:

   - Why did we fail?
   - What worked?
   - What didn't work?
   - How can we improve to help the user next time?
   - Is this solution feasible? Is it manageable?
   - Are these changes designed with the user in mind?

   A prototype can take various forms, from a hand drawn sketch to a full-fledged working model. The points to be considered while creating a prototype are:

   - Selecting the prototype to create – depends on the resources and time at your disposal, and the stage of prototyping you are in. Early prototypes can be rudimentary, but final stages of prototyping require well-developed prototype formats.
   - Select the right tools and resources for prototyping – ranging from drawing boards to simulation software and cardboard cut-outs to actual functional product or space layout, it is necessary to acquire the right tools for developing the selected prototype.
   - Do not get emotionally attached to a particular prototype.
   - Build with the user in mind.

5. Test:

   At this stage, one seeks feedback for the prototypes.When undertaken correctly, the Testing stage of the project can often feed into most stages of the Design Thinking process: it allows you to Empathize and gain a better understanding of your users; it may lead to insights that change the way you Define your problem statement; it may generate

[30] https://www.interaction-design.org/literature/article/design-thinking-get-started-with-prototyping#:~:text=A%20prototype%20is%20a%20simple,or%20possible%20changes%20in%20direction.

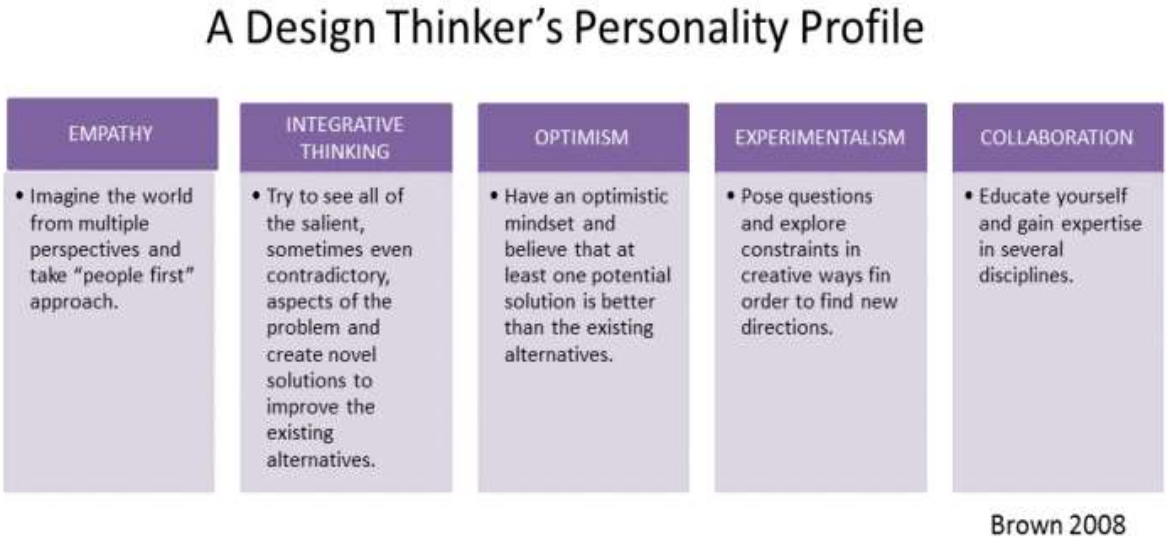
new ideas in the Ideation stage; and finally, it might lead to an iteration of your Prototype[31].

How to become a good Design Thinker?

Greg Holderfield[32] believes that, apart from the following ten traits, an individual needs to have an optimistic mindset to be a good design thinker.

1. An observing eye and a constant sense of wonder (what is possible, not what is probable)
2. An empathetic attitude towards people's behavior and habits (qualitatively-based through in-context observation and discovery)
3. A questioning mind that goes beyond the obvious
4. Patience to remain in the problem space until the right questions are identified (problems are opportunities in disguise)
5. A holistic approach to problem solving
6. A willingness to experiment and build (doing!)
7. A passion for team-based collaboration that puts the user at the center of the opportunity challenge
8. A willingness to always be sharing
9. An acceptance of the messy (design thinking is not neat)
10. A commitment to lifelong learning

Tim Brown (2008) states that everyone can be a design thinker and lists five characteristics of a design thinker[33]:



[31] https://www.interaction-design.org/literature/article/stage-5-in-the-design-thinking-process-test#:~:text=At%20the%20heart%20of%20these,implemented%20within%20the%20current%20design.&text=Testing%2C%20in%20Design%20Thinking%2C%20involves,deeper%20understanding%20of%20your%20users.

[32] https://blogs.kellogg.northwestern.edu/inside/2015/01/28/10-tips-to-be-an-effective-design-thinker/

[33] https://sidlaurea.com/2017/09/21/becoming-a-design-thinker/

Shelly Goldman from Stanford University[34]emphasized that apart from skills, design thinkers need to adopt four specific mindsets:

1. Human – centered: enable empathy
2. Experimental – view everything as a prototype
3. Collaborative – involve multiple-skill sets
4. Metacognitive –thinking about your thinking, to monitor your progress

The entire concept of Design Thinking should be delivered through actually engaging students in the design thinking process and teaching them about each phase as they pass through it. Some good resources for a classroom activity are available at:
https://www.aakb.dk/sites/www.aakb.dk/files/files/news/libraries-toolkit_activities_2015.pdf
https://education.uky.edu/nxgla/wp-content/uploads/sites/33/2016/11/Design-Thinking-for-Educators.pdf
https://www.teachingentrepreneurship.org/design-thinking-101/

[34]https://www.inc.com/teresa-torres/how-to-think-like-a-stanford-trained-design-thinker.html

Sustainability

Sustainability is

> "Meeting the needs of the present without compromising the ability of future generations to meet their own needs."
>
> --- *United Nations Brundtland Commission (1987)*

Today, there are almost 140 developing countries in the world seeking ways of meeting their development needs, but with the increasing threat of climate change, concrete efforts must be made to ensure development today does not negatively affect future generations.

Sustainability is a broad discipline, giving students and graduates insights into most aspects of the human world from business to technology to environment and the social sciences. Sustainability skills and environmental awareness is a priority in many corporate jobs at graduate level and over as businesses seek to adhere to new legislation[35].

The Three Pillars of Sustainability

In 2005, the World Summit on Social Development identified three core areas that contribute to the philosophy and social science of sustainable development.

Economic Development

- Economically sound political ideology
- Business, jobs and employability
- Incentives for business to be sustainable
- **<u>Giving people what they want without compromising quality of life</u>**

Social Development

- Protection of people's health from harmful activities and pollution of businesses
    - Strong checks and programmes of legislation in place to ensure that people's health and wellness is strongly protected (U.S., Europe, etc.)
- Maintaining access to basic resources without compromising the quality of life.
- Build better homes we live in from sustainable material.
- Education - encouraging people to participate in environmental sustainability and teaching them about the effects of environmental protection as well as warning of the dangers.

Environmental Protection

- Defines how we should study and protect ecosystems, air quality, integrity and sustainability of our resources
- Concerns how technology will drive our greener future
- Developing technology and biotechnology is key to this sustainability
- Protecting the environment of the future from potential damage of technological advances.

[35] https://www.environmentalscience.org/sustainability

2030 Sustainable Development Goals

The 17 Sustainable Development Goals (SDGs)are to be achieved by 2030.

1. No Poverty
2. Zero Hunger
3. Good health and Well being
4. Quality Education
5. Gender Equality
6. Clean Water and Sanitation
7. Affordable Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10. Reduced Inequalities
11. Sustainable Cities and Communities
12. Responsible consumption and Production
13. Climate Action
14. Life below water
15. Life on Land
16. Peace, Justice and strong institutions
17. Parternership

Triple Bottom Line (TBL):

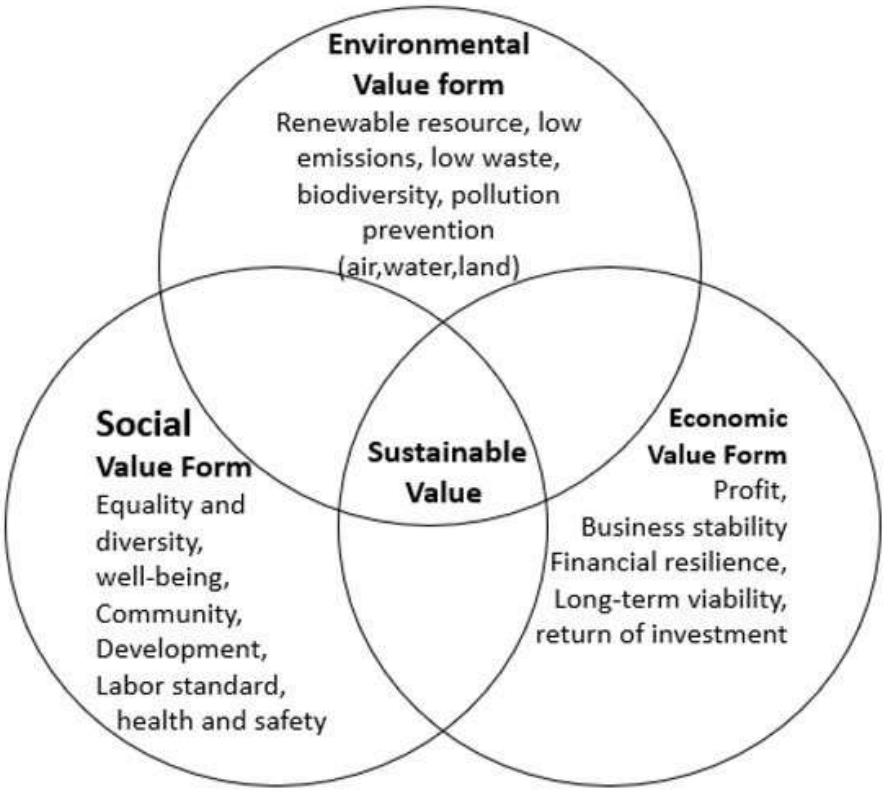
The triple bottom line (TBL) is a framework or theory that recommends that companies commit to focus on social and environmental concerns just as they do on profits. The TBL posits that instead of one bottom line, there should be three: profit, people, and the planet. A TBL seeks to gauge a corporation's level of commitment to corporate social responsibility and its impact on the environment over time.

In 1994, John Elkington—the famed British management consultant and sustainability guru—coined the phrase "triple bottom line" as his way of measuring performance in corporate America. The idea was that we can manage a company in a way that not only earns financial profits but which also improves people's lives and the planet.

TBL framework advances the goal of sustainability in business practices, in which companies look beyond profits to include social and environmental issues to measure the full cost of doing business.

People + Planet = Social + Environmental Responsibility

According to TBL theory, companies should be working simultaneously on these three bottom lines:



Source: mdpi.com

By focusing on these three interrelated elements, triple-bottom-line reporting can be an important tool to support a firm's sustainability goals.

Sustainability Reporting is about communicating the organization's approach to managing its key environmental and social issues. It is about communicating publicly how the company assesses which environmental and social issues are most significant to the company ("materiality"), how these issues are managed and how the company is performing against each of these key issues (performance data). At Paia, we approach these issues as business risks, and opportunities. Climate change, talent retention and employee diversity, for example, can pose both risks and opportunities for companies, so it is about communicating how the organization is identifying and managing these risks and opportunities.

Integrated reporting is one step further – about communicating, how the company manages its long term value creation by taking an integrated approach to both traditional risks and these wider sustainability risks. Instead of reporting on financial performance and sustainability performance separately, or even within the same AR, Integrated Reporting intends to show how the company integrates environmental & social thinking into its business.

So for example, an integrated report goes beyond financial, employee, environmental and social data, to also demonstrate how the company integrates these broader risks and

opportunities into its long term strategy, into its risk management, into operating policies and procedures, and what the tradeoffs between these issues are.

Additional Material:

Design Thinking:

https://hbr.org/2018/09/why-design-thinking-works
https://mitsloan.mit.edu/ideas-made-to-matter/design-thinking-explained
https://www.invisionapp.com/inside-design/what-is-design-thinking/
https://designthinkingforeducators.com/toolkit/
https://link.springer.com/chapter/10.1007%2F978-3-642-31991-4_2
https://www.prnewswire.com/news-releases/deloitte-survey-americans-look-at-their-smartphones-in-the-aggregate-more-than-8-billion-times-daily-300190192.html
https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2016/employee-experience-management-design-thinking.html
https://www.myhrfuture.com/blog/2018/8/14/how-to-use-design-thinking-in-hr

Sustainability

https://sustainability.com/
https://academicimpact.un.org/content/sustainability
https://www.sustain.ucla.edu/about-us/what-is-sustainability/
https://www.environmentalscience.org/sustainability
https://www.investopedia.com/terms/t/triple-bottom-line.asp
https://paiaconsulting.com.sg/what-is-the-difference-between-sustainability-reporting-integrated-reporting/
https://www.undp.org/content/undp/en/home/sdgoverview/mdg_goals.html
https://www.who.int/topics/millennium_development_goals/about/en/
https://en.unesco.org/sdgs
https://www.un.org/sustainabledevelopment/sustainable-development-goals/
https://www.undp.org/content/undp/en/home/sustainable-development-goals/background/
https://www.open.edu/openlearn/money-business/sustainable-innovations-enterprises/content-section-3.2.3