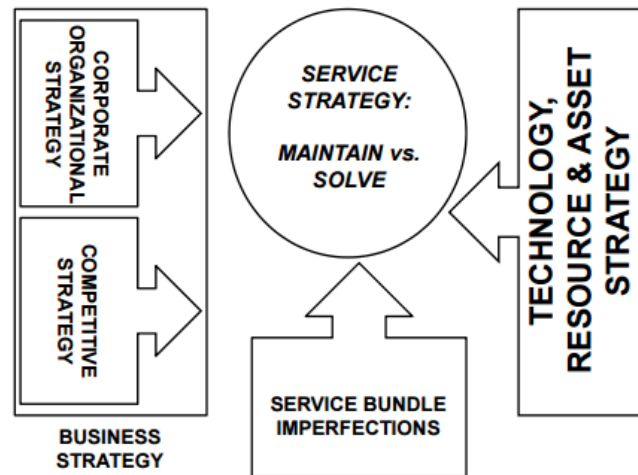


HC7 ICTSM

- Slide 2 :



2

- Corporate organizational strategy : internal
- Competitive strategy: external
- How can you formulate services so that you can live with imperfections?
- Strategy is needed to fight the imperfections (in a perfect economy → no choices)
- Economy being far from perfect, competitive strategy is really needed. In fact, the slightest imperfection renders an economy imperfect, and creates a competition for technologies, resources, assets and customers. Imperfection in the market structure is the main reason for failing. Organizations need to deliver services that take into account the competition, and at the same time recognize and balance market imperfection.
- The strategic decision making contains two parts: on the one hand there is the exploration part (discover value leaks, imperfections and opportunities) and on the other hand the exploitation part (solve or maintain the imperfections).
- Imperfections for services (slide 3-7):
 - **INCOMPLETE BUNDLES:** some technologies, resources and assets are non-existent, creating the opportunity for services to deal with these missing elements.
 - **ASYMMETRIC BUNDLES:** refers to the inhomogeneity of the distribution of technologies, resources and assets. It often occurs when different people know different things. We will speak of information asymmetry when one party in a transaction has more or more advanced information compared to the other. Obviously this may lead to imbalances in negotiations or transactions. In this regard, we can speak of value co-creation. Since both clients and suppliers may try to benefit from developing opportunistic behavior (fraud), or may benefit from preventing such behavior.
 - **ASYMMETRY OF MEANING FOR BUNDLES:** This occurs when different parties are giving a different interpretation to the same bundle of technologies, resources and assets. It is all about the semantics of the bundle that constitutes a service. There are mainly two categories of asymmetry of meaning. The first category happens when there is a lot of subjective interpretation possible in the bundle, making the bundles meaningful for one client, while giving another meaning to other clients. The second category occurs in situations where ambiguity is apparent in the presentation of

technologies, resources and assets. If information is not properly positioned in context, it will probably be interpreted differently.

- **Slide 6:** “master data management” and “data governance” tend to be insufficient to use the information effectively throughout the firm. **master data management** (MDM) comprises the processes, governance, policies, standards and tools that consistently define and manage the critical data of an [organization](#) to provide a single point of reference
- **Service Rent** (slide 9 - 11):
 - A service strategy is a continuous search for sustainable Service Rent by means of mechanisms of value co-creation and value leak handling in the exploitation of a specific service bundle imperfections thereby deciding whether to solve or maintain the imperfections.
 - Manage the clients & suppliers + remember that you are a client to the suppliers!
 - **SOLVE-OPTIONS** = means that the service provider takes the appropriate actions to correct the bundle, in search of service rent. Several strategy patterns emerge here:

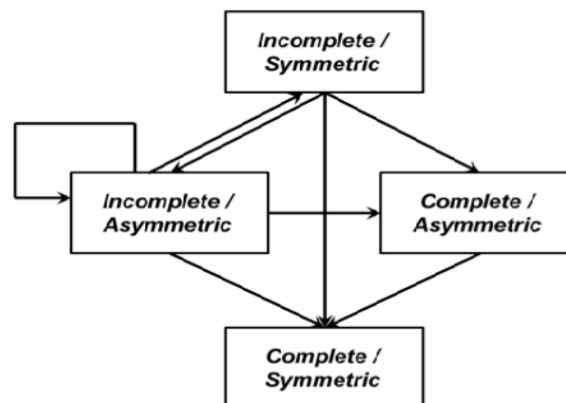


Figure 5.2. Effects of the SOLVE option for service bundle imperfections

- The bundle may be incomplete, but symmetric

In this case, both the service client and the service provider are missing some technology, resource or asset. The provider may solve the incompleteness simultaneously for the client, in which the bundle becomes complete, as still remains symmetric in all aspects. But the provider may also decide to solve the incompleteness only on his side, creating an asymmetry. Finally, the provider may also go for a partial solving, so that final bundle is still complete, but “more complete” on the side of the provider than on the side of the customer. This would lead to a combination of incompleteness and asymmetry.

- The bundle may be complete, but asymmetric

Solving the asymmetry means in this case rendering the asymmetry into a symmetry, by means of disclosing the complete bundle as well as its meaning to the customer. Obviously, there is risk in disclosing completely the bundle, since it can make easier for the customer to compare details of various bundles. That is basically why; providers may choose to maintain the asymmetry instead.

- The bundle may be incomplete, as well as asymmetric

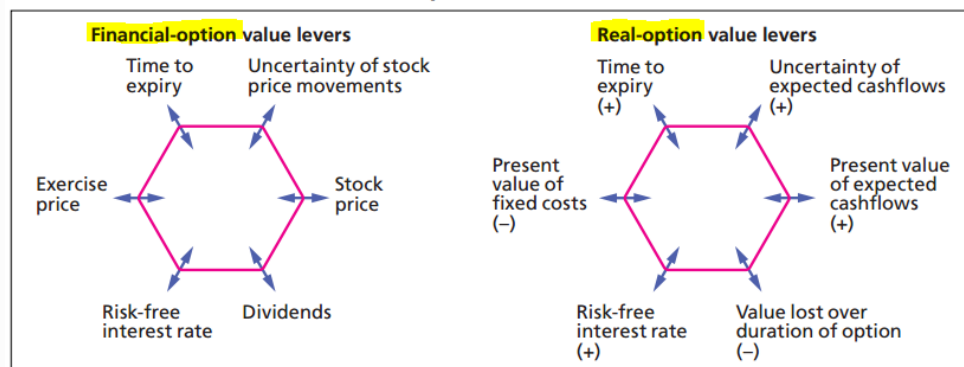
In this case, both the service client as well as the service provider are missing element of the bundle, and the available parts are not homogeneously distributed or may have a different interpretation. In presence of this strategy pattern, we have four options to consider. The first two solve partially the imperfection (i.e. incompleteness **or** asymmetry), the most ambitious

one to solve the imperfection in total (i.e. incompleteness **and** asymmetry), and the least favourable one is a partial solution on both types of imperfections (i.e. neither incompleteness nor asymmetry solved).

- → ultimate solution : symmetric + complete
- **MAINTAIN-OPTION** = the organization decide to not devote energy or capabilities to complete bundles of technologies, resources and assets, and deliberately keep them incomplete or asymmetric.
 - Maintaining incompleteness: completing bundles may be too costly or complex, incompleteness may not represent significant value leaks. In this case, parties operate in a *bounded rationality* context. Both service client and provider operate as if they have completeness in the service bundle. Bounded rationality is often related to services with small risks involved. But parties may not have the choice, since the incompleteness is often just the reality: it might just be impossible for a provider to know all details about a potential client, as the same applies to clients towards providers
 - Maintaining asymmetries: if the provider has advantage by keeping some technologies, resources or assets asymmetric, and could actually create a value leak by disclosing this bundle parts, it is obvious that he will maintain the imperfection. In a lot of situations providers refuse to disclose all details about their service bundles, to make it more difficult for the clients to compare alternative service providers (e.g; tariff structures for GSM-operators). And in most cases client accepts this asymmetry, provided the quality of the service meets the requirements of the service contract.
- **Slide 15**
 - Expand model till all many-to-many transitions are gone
 - 'hidden markov models'
- **Slide 17**
 - E.g. information incompleteness can be caused by the format of the information → has an impact (decision table or flat text)
- **Slide 19**
 - Vision is being unnoticed (if everything works it will not be noticed)
 - Left process: relation between local office and interrupt → no reason to do this
 - Right process: now 'interrupt' is reported to OTIS-LINE ; this process is 30% less complex than the left process
 - Digital transformation
 - Muda → waist
- **Slide 20 NPV methode 1**
 - P1 was declined (negative NPV)
 - P1+P2 → negative NPV but we will invest anyway because P2 alone had a positive NPV (the followed order P1 & P2)
- **Slide 21 NPV methode 2**
 - Kijken welke methode de realiteit het beste reflecteert!
 - Hier kijken we eerst of P1 wel rendabel is of niet om de NPV van P2 te berekenen
 - NPV (P2) = joined value
 - Nu de samengestelde NPV wel positief
- **OPTIONS Black-choles** (slide 22 - 23)
 - Uitstellingen van beslissingen : take option

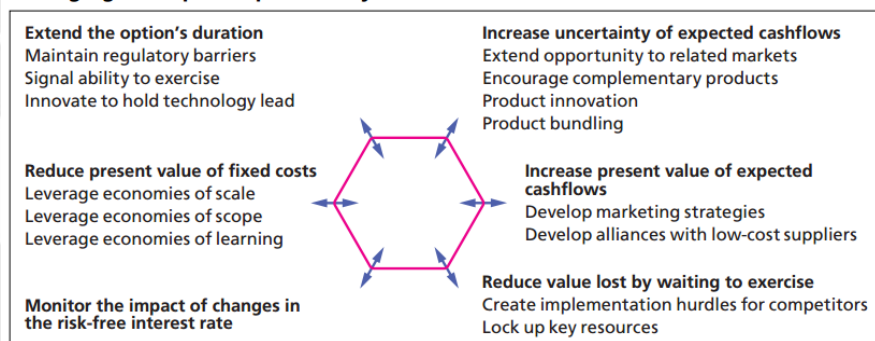
- Stock option → the more risk, the more interesting it is to have
- Variantie zo laag mogelijk houden → risk stijgt, variance stijgt
- High correlation → low risk
- Als de vraag stijgt van B dan stijgt het risico
- Value of the option : 5676/1,1
- Black-scholes: ze hebben een formule ontwikkeld waarmee optieprijzen berekend kunnen worden
- als je geen gegevens hebt moet je test-cases uitvoeren
- **REAL OPTIONS** (slide 24)
 - Valuation tool + strategic tool
 - A real option confers certain reactive flexibilities on its holder – essentially, the option to invest, wait, or divest in response to new information. Its sensitivity to the value of these possibilities is what makes a real option a better valuation tool than NPV. NPV, creates a static picture of existing investments and opportunities.
 - In financial markets, purchasing an option bestows the right (but not the obligation) to buy or sell a stock at a fixed price within a fixed period

The six levers of financial and real options



- The advantage of proactive flexibility is that management can use their skills to improve an option's value before they exercise it, effectively making it worth more than the price paid to acquire or create it. They do this by pulling the levers that control

Managing real options proactively



its value.

- **Lever 1: Increase the present value of expected operating cash inflows.** This is achieved by increasing revenues, either by raising the price earned or

producing more of the commodity in question, or by generating sequential business opportunities (creating, in effect, what is usually called a “compound option.”)

- **Lever 2: Reduce the present value of expected operating cash outflows.** There are two basic ways to cut costs: by leveraging economies of scale (the cost per unit of falls as the number of units rises), or by leveraging economies of scope (using the same costs to do two different things). A company unable to do these things alone could perhaps do so in partnership.
- **Lever 3: Increase the uncertainty of expected cash flows.** Greater uncertainty raises option value, because it increases the value of flexibility. This is perhaps the crucial difference from NPV analysis. When a company has only bought an option, it has not bet the entire value of the investment: it is exposed to the upside, but not the downside. As a consequence, an option holder wants to do everything it can to increase the uncertainty of expected returns and then exercise at the top, or back out, depending on how things go
- **Lever 4: Extend the opportunity’s duration.** This raises an option’s value because it increases total uncertainty.
- **Lever 5: Reduce the value lost by waiting to exercise.** In financial options, this is the cost of waiting until after the payment of a dividend (which lowers the stock value, and therefore the option payoff). In a real business situation, the cost of waiting could be high if an early entrant were to seize the initiative. When first-mover advantages are significant, the dividends are correspondingly high, thus reducing the option value of waiting. The value lost to competitors can be reduced by discouraging them from exercising their options: by locking up key customers or lobbying for regulatory constraints, for example.
- **Lever 6: Increase the risk-free interest rate.** This is not at issue in the discussion of proactive flexibility, because the risk-free rate cannot be influenced by any player. It is worth noting, however, that in general any expected increase in the interest rate raises option value, despite its negative effect on NPV, because it reduces the present value of the exercise price.
- **Choose the right parameters** (Slide 26):
 - Lists ranking firms that excel at using information technologies. These lists are usually subjective; they are not produced by and cannot be matched with independently verifiable data sources.
 - CIOs must come up with a better way to prove excellence and convince corporate boards that technology budgets deserve to be increased. What seems to work best? Showing that your organization compares favorably against competitors and using verifiable information to make your case. Specifically, you should demonstrate that your company spends less than its principal rivals and delivers superior returns to shareholders.
 - What matters most is your credibility as CIO. If indicators suggest that costs have been consistently below the competition’s for several years while performance remained superior, you can point to technology superiority as a prelude for continued success.3
 - **Cost ratio:** technology as a percentage of compensation, is a favorite indicator of economics-based researchers, who maintain that relatively large substitutions of technology for labor are proof that a company manages its processes well

- IT spending
- Performance ratio
- Slide 27:
 - The directors—who usually have a limited amount of time to devote to an examination of technology spending—tend instead to focus on whether steadily rising technology costs actually deliver a competitive advantage to their company.
 - Start by reviewing the financial statements of your company and those of your rivals, identifying technology spending as well as other expenditures and metrics such as employee head count.
 - Then, calculate key cost ratios, such as technology spending versus revenue, and key performance ratios including return on shareholder equity for your company and your rivals (see worksheet at right).
 - If the cost ratios are lower and performance ratios are higher than those of your competitors, you will have a better shot at getting your request for information-technology spending plans approved by the board of directors—or even possibly keeping your job for another few years.
- Slide 29 EXPERIENCE ECONOMY
 - **EXAMEN ! 2 cases vergelijken**
 - nu zijn we aangeland in een economie die draait om belevenissen: ‘gebeurtenissen die mensen op een persoonlijke manier aanspreken’
 - Activiteiten, zelfs de meest gewone, moeten zoveel mogelijk unieke ervaringen worden
 - Klanten zijn immers bereid fors te betalen voor een belevenis of een goed gevoel, omdat ze tegenwoordig méér willen dan alleen een product
 - E.g. birthday cake

