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Disruption in B2B sales is enforced by COVID-19, Internet of Competition (IoC) model changes the way we sell

This article introduces a framework (stack of sensors, data infrastructure, analytics, application and digital service), namely “Internet of Competition (IoC)”. IoC allows B2B companies to improve their Win Rate, via a deep understanding of customer buying criteria and analysis of own (and competitor) strengths and weaknesses. Using IoC methodology, we can combine the benefits of Artificial Intelligence (AI) and Lean Six Sigma (L6S) based sales processes improvement to create a *closed loop for a continuously improving Win Rate*. IOC disrupts B2B sales in a similar way that the internet did for consumer business and is also economically scalable from self-employed to large corporates. COVID-19 pandemic put buying processes on hold and this paper also presents a case study of buying criteria changes prior, during and after the crisis.

Keywords: win rate; artificial intelligence; internet of things; B2B sales; sales process; buyer driven economy, COVID-19

Introduction

Over the past decade, B2C sales has dramatically changed due to explosion of the internet, changing buying behaviour and availability of purchasing related data which can be used to predict purchasing behaviour. We can all recognize this from consumer services such as Amazon. But, can the same type of phenomena happen in B2B sales, and what is needed to make it happen not only theoretically, but also in practice? This is a large and multifaced research question, especially when we consider that B2B salesforces are often “locked” in Sales Management Control Systems (Stacey et al,



2018), sales is still a very instinctive based activity and that any solution should be affordable to a small B2B business.

This article reviews some the major disruptions happening and, as a resolution to them, introduces a generic framework, namely Internet of Competition (IoC) “stack” and its critical success factors for wide range of applications and use-cases. Case study of COVID-19 impacts on buying criteria is also presented and possible future impacts to B2B companies are discussed. We are witnessing a “reset” of global buying behaviour, and IoC sets a solid ground to measure, analyse and improve B2B companies’ competitiveness in a dramatically changing environment.

Three parallel disruptions affecting B2B sales

There are three parallel disruptions effecting B2B sales. IoC framework interlocks them and enables a data-driven sales process optimization in B2B environment.

1. Buying behaviour of customers is changing rapidly, due to multiple reasons. Internet and easy access to data has already changed the way we behave as consumers and same transformation is also happening on the B2B side. Sales personnel is no longer needed to present products/services, but rather showing the customer value and helping customer to make a fast, yet right purchase decision. In general, the control of the buyer-seller process has moved from seller to buyer and aligning customer buying process with your own sales process becomes important (Webb, 2014 and Leijala A., 2019).
2. Analytical tools are developing fast and companies are introducing various kinds dashboards which claim to use mega-data and AI. However, there’s a true concern that data literacy capability is lacking far behind the flood of facts and figures we get every day (Tableau, 2018). This is supported by my own empirical studies of 140 companies, where a clear majority of CEOs, CMOs,



sales directors and sales personnel lack even the basics of data- and fact-based management skills. Dashboards are filled with nice-to-know charts, and are especially lacking the “actionability” part, i.e. what corrective or predictive actions should be triggered based on the visualized data.

3. Lean Six Sigma (L6S) has been broadly applied in large corporates for several decades already (George M., 2002). Today’s mainstream applications are ranging from production and support processes to finance, services and design, literally covering most process-areas. Most large corporates apply L6S in some form or shape (e.g. Lean, Six Sigma, Lean Six Sigma or Continuous Improvement), but very few are using it to improve the effectiveness of sales process or the entire “sales production system”, which includes the marketing, sales and service functions and all activities needed to find, win and keep customers (Webb 2014).

Internet of Competition (IoC) stack

The main purpose of this article is to introduce IoC “stack”, which can be used to create a closed loop for learning from won/lost sales cases (tender or bid submitted to customer) and a continuous improvement model for Win Rate. IoC stack has five (5) levels: Sensors, Infrastructure, Analysis, Application and Digital service. All levels are needed for a fully functioning system. Data quality is a critical success factor and thus its role is described separately.

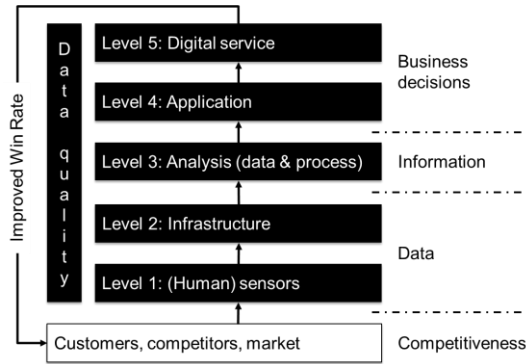


Figure 1. Internet of Competition (IoC) stack.

Level 1. (Human) sensors

Internet of Things (IoT) commonly refers to “sensors” as technical devices collecting data. Recent IoT applications vary from security (Mathew A., 2019) and weather monitoring (Oo, Z., 2019) to digital marketing (Mohammadian A., 2020). In B2C e-commerce, web-shop type devices are used to collect massive amounts of data on customer behaviour. However, in B2B business and a non-integrated environment, the best understanding of customer requirements and competitive situations is often a *human customer interface*, i.e. either sales personnel or customer personnel.

Level 2. Infrastructure and data storage

Customer Relationship Management (CRM) systems are commonly used in larger B2B companies. These CRM systems form the core of needed infrastructure and data storage. In a small business environment, where CRM is often seen too complex, Excel is commonly used as the only storage of sales related customer data. Regardless of the system, it is important that relevant data is available and can be collected and maintained in preferably one data storage.

Level 3. Analysis

Analysis is divided in 2 phases, *data* analysis and *process* analysis.



Data analysis plays a critical role in IoC model. Win Rate (%) is the foundation of IoC data analysis, and it should be assured that the formula measures the efficiency of sales process. Win Rate is sometimes referred as Conversion rate or Hit Rate, but the basic logic of the formula is the same or similar.

$$\text{Win Rate \%} = \frac{\text{\# of won cases}}{\text{\# of won + lost + withdrawn cases}} * 100\%$$

Formula 1: Definition of Win Rate %.

In addition to Win Rate analysis, we analyse the reasons for sales outcome. I.e. we analyse “answers” (why did we win or lose?) and other sales case related data and as a result we get “rules”, i.e. how to win and what are our advantages and disadvantages. Thus, IoC utilises effectively the AI principles and logic.

Process analysis is an equally important part of analytics. It is not enough that a salesperson improves the win probability of the next tender. Improvements need to be made in the underlying sales process to assure that competitiveness, measured by Win Rate, improves to the next level (Leijala A., 2019) and that the benefit becomes permanent.

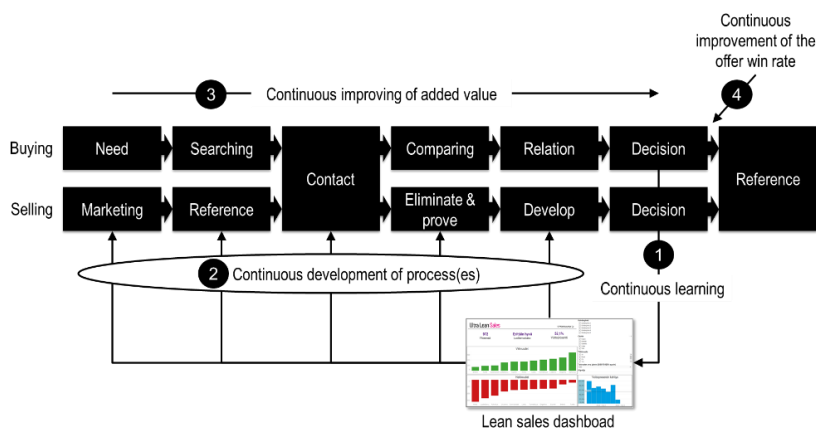


Figure 2: Buying process, sales process and continuous improvement (Leijala A., 2019).



Sales has traditionally been led by instinct and strong opinions. However, modern sales require managing by data and process improvements. In an on-line consumer business this is already happening, and via IoC this new sales leadership method and culture can be brought widely to the B2B business.

Level 4. Application

The main application of IoC is improving the win rate, and this can be done in numerous ways. In this chapter, two applications are presented as examples of many others.

- (1) Ongoing sales case. Salesperson can easily gain knowledge on similar cases from history and what were the strengths and weaknesses against different competitors. This enables him/her to enforce the strengths in the offer material/presentations and to also to mitigate some of the weaknesses.
- (2) Identify product competitiveness in different situations. What is our Win Rate if the product is sold separately vs. attached to other products or services? Or what is product competitiveness in specific markets and against different competition?

IoC enables hundreds of similar applications where Win Rate analysis is linked with not only sales process, but also any other core processes (such as strategy, pricing, delivery, innovation, product management or quality) of a company.

Level 5. Digital service

Digital dashboard enables companies to simulate competitiveness in different types of sales cases and environments. The salesperson can easily visualise and deep dive to their own strengths and weaknesses in different type of sales cases. This information is



collected in a systemic manner and with high quality root cause analysis. Thus, it allows immediate usage in open sales cases to elaborate the strengths, to mitigate weaknesses and to differentiate from competition.



Figure 3: Example of digital service, Lean-sales dashboard (Leijala A., 2019)

When taking a more holistic company-wide approach, competitiveness data becomes accessible to all needed parties. Eventually, the whole company can contribute to improving the Win Rate, and in a measurable and actionable way. As an example, product manager can gain e2e insight to product competitiveness in different environments and better understand buying criteria beyond own product features, functionalities, and technical benefits. Another example is that pricing manager can evaluate the role of price vs. other buying criteria and even start optimizing the price to a level which does not yet impact Win Rate. Third example is that company can measure the impact of sustainability or environmental image vs. Win Rate, thus making company efforts to them easier to justify, both internally and to customers.

In summary, competitiveness becomes *measurable*, *transparent* to all and most importantly *actionable*.



Case study: Impact of COVID-19 in customer buying criteria prior, during and after the pandemic

In total 44 B2B companies in Finland were studied during first week of April 2020 when the pandemic had a high peak in terms of governmentally set restrictions to move out from your own home and a strong recommendation to avoid any interactions with other people. Consequently, also B2B business had stopped for majority of companies. Using IoC framework, an online survey was conducted to qualify and quantify ongoing and expected changes.

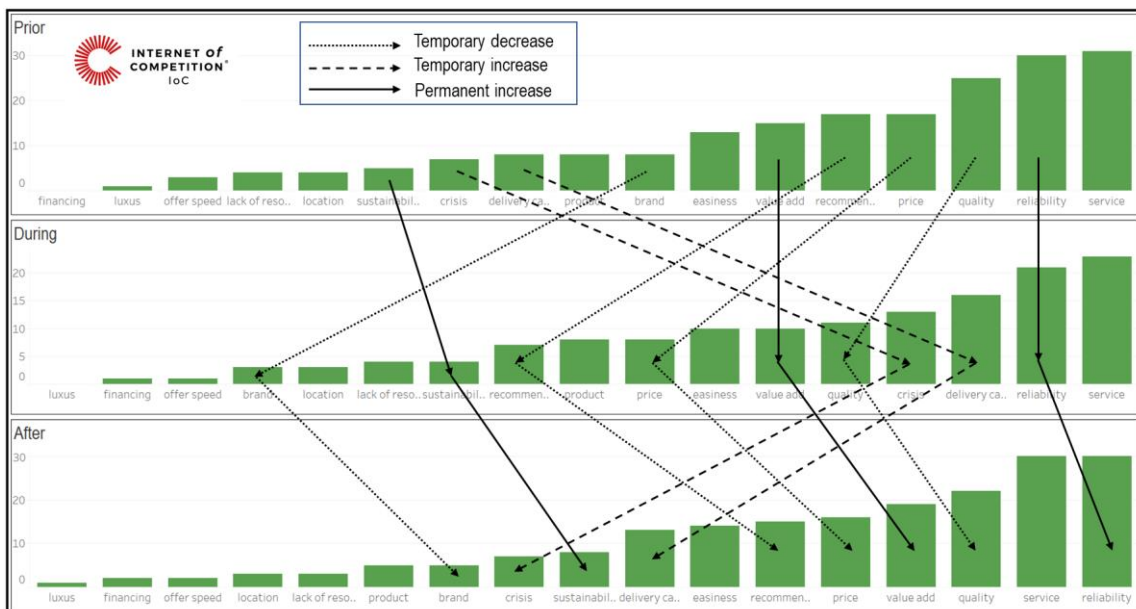


Figure 4: Case study of buying criteria prior, during and after the COVID-19 pandemic reveals three types of changes.

Results indicated that there are at least three type of changes in the buying criteria.

- (1) Some buying criteria (such as quality, price, recommendations and brand) have a *temporary decrease* during the pandemic, but they are expected to climb up after the pandemic is over.



- (2) Some buying criteria (such as delivery capability and resolution to crisis related challenges) have a *temporary increase* during the pandemic, but their role is expected to decline after the pandemic is over.
- (3) Some buying criteria (such as sustainability, value add and reliability) have a *permanent increase*, and are expected to increase their role during and after the pandemic.

The survey was conducted with 44 B2B companies in Finland. They represented 40 different industries and were 1-9 employee micro-companies with turnover between 0€ and ~3m€ (median ~200k€). Most respondents estimated that the situation will “normalise” within 2-3 months, i.e. June/July 2020, but obviously only time will show when and how this happens.

Discussion and conclusions

Customer buying processes and buying criteria are changing at an increasing pace. Most companies have already seen clear changes during the past 5-10 years and B2B companies are equally affected. Recently, COVID-19 has impacted virtually all companies. In consumer business, AI platforms and predictive analysis are already established, and especially large corporates are effectively using them to predict and influence customer buying behaviour. Similar phenomena can happen in B2B side, using the Internet of Competition stack introduced in this paper.

Increased customer value enables revolution of business growth

Most implementations of sales process (and related CRM-systems) focus mainly on the company’s own internal activities and keeping sales forces in control (Stacey L. et al, 2018). IoC changes this radically as the main purpose of sales process becomes 1) *meeting customer buying process steps* and 2) *meeting buying criteria*. As an outcome



of this process and data driven philosophy, company can *provide more value to customer*.

Implementation of IoC does not require investment in CRM systems, nor massive amounts of data. One can take the first steps using Excel and with as few as 30 samples (past won and lost cases). Thus, it's not an exclusive right of large corporates, but can be even be applied by self-employed B2B entrepreneurs. This is essential prerequisite for wide and fast adoption in B2B environment, remembering that most small businesses do not use CRM and typically only have some tens of sales cases per year.

Special attention should be placed on understanding and analysing customer buying criteria and underlying root causes. This enables accurate predictions of own strengths and weaknesses in upcoming sales cases and competitiveness in multiple different use-cases.

Critical success factor #1: data integrity

Data integrity needs to be high, in order to assure correct interpretation of data and corrective actions for improving competitiveness. However, analysis of Win Rate provides massive new insight to most companies, so one should not use poor data quality as an excuse for not starting today.

Information quality has been recognized as a potential contributor in achieving strategic advantage over competitors (Baskarada & Koronios, 2014) and this applies also to B2B sales. Root cause analysis capability and skills are especially important in evaluating the reasons for winning or losing tenders. While L6S methods provide an extensive toolbox for high quality root cause analysis and continuous process improvement, starting with basic tools is already a huge improvement in an instinct based sales environment. Opinion based data, i.e. reasons for



losing/winning/satisfaction, is often thought and entered in a rush (regardless of whether it comes from customer or sales personnel). Thus, the results also partially represent symptoms rather than real root causes. There are a couple of easy, yet powerful, root cause analysis methods which are recommended, such as standardizing the data structure, cause-effect diagram (ASQ 2020a) and the 5 why method (ASQ 2020b).

Critical success factor #2: data confidence level and quantity

Data confidence level and quantity is another critical success factor. The more data we have, the more we can deep dive to different types of cases and identify strengths and weaknesses. It is commonly assumed that AI requires massive amounts of data. This, however, is not necessarily the case in B2B sales when applying IoC. Pestorius captures the essential point in his book (2007): *“In a World where 20% margins and 10% growth is considered successful, making critical decisions with 50-60% certainty, rather than 0% is an enormous and profitable improvement”*. This contradicts heavily with typically used 95% ($P < 0.05$) confidence levels for correlation and regression testing as well as “Six Sigma” level of defect ratio where only 3.4 defects in a Million samples are allowed. To make this concrete, who would even dream to win 9,999,966 tenders out of a million attempts?

My analysis shows that a 95% confidence level for decision making is reached with ~80 cases. And moderate (50%) confidence already at ~30 cases. Even though one can start with only ~30 won/lost tenders, the full power of IoC comes when the volumes are high. Not only large volume allows more focused and accurate corrective actions, but also totally new applications and use-cases for the competitiveness data.

Reflections on COVID-19 impact to buying process and criteria

The COVID-19 pandemic and the respective “reset” of global buying behaviour forces



B2B companies to re-think customer buying process and criteria. Using IoC framework, they can not only analyse and quantify changes, but also adjust their own sales process to meet the new conditions.

Companies who can do this faster than their competitors are expected to be the winners in 21st century B2B sales. Likely the global economy will now face numerous changes and the outcome to B2B companies is hard to predict. To mention a few possible scenarios; many countries have already started to protect/favour home markets, remote work has become a new standard for many, online education has made a great leap and even the end of urbanisation has been discussed. If people, enabled by the possibility to work remotely, move from high density urban cities to rural countryside, what will be the implications to B2B companies in cities? How about B2B companies in smaller rural towns? In this turbulence, high quality analysis of customer buying behaviour becomes a critical success factor for companies and it also opens a huge number of new academic research opportunities utilising the Internet of Competition (IoC) framework.

Conclusions and proposed research areas

In summary, Internet of Competition (IoC) framework and the described “stack” is a suitable foundation for 21st century B2B sales model, where sales and competitiveness related decisions are done using data analysis. Once the foundation is in place, it can be scaled in multiple directions to improve company Win Rates and other KPIs such as profitability. Short, medium, and long-term impacts of COVID-19 on buying behaviour will be the most important next research area. This research can be done for either single B2B company, or a group of many companies. Additionally, correlation between Win Rate and Price will be an interesting and highly valuable research area for B2B companies.



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ASQ 2020b. As of 15.1.2020, ASQ refers on its website <https://asq.org/quality-resources/quality-glossary> “Five whys is a technique for discovering the root causes of a problem and showing the relationship of causes by repeatedly asking the question, “Why?” A repetitive questioning technique to probe deeper to surface the root cause of a problem. The number of times “why” is asked depends on when the true root cause is reached.”

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