



SUPPLY CHAIN WHITE PAPER

10 KEY TRENDS TO UNDERSTAND SUPPLY CHAIN MANAGEMENT

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APRIL
2017



In few years only, Supply Chain Management became one of the trendiest topic for organizations facing globalized markets. But in parallel it also remained one of the foggiest topic for managers at every level. Sticking to logistics origins we could stand our ground on initial Supply Chain Management definition (a system reaching all processes, flows and resources needed to deliver the right product / service at the right place, in the right timing, with the right quality, quantity and cost). But I think the best way for Managers to keep an up to date vision is to have a clear understanding of the main trends shaping business environment. Through this exercise, we clearly see how the essence of Supply Chain Management (systemic approach, vision sharing, animation principles...) is essential to face all challenges emerging.

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ABOUT THE AUTHOR

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In consulting business since 2010

Former warehouse manager in retail industry

Business Master degree - KEDGE BS, 2009 - FRANCE

Master of Science in Transport and Logistics - KEDGE BS, 2009 - FRANCE

Expertise in Supply Chain Management, Lean operations, Purchasing Strategies and Management of transformation plan / cost reduction plan

Missions led in various industries : Retail, FMCG, Pharmaceutical, Automotive, Railway, Aeronautics...



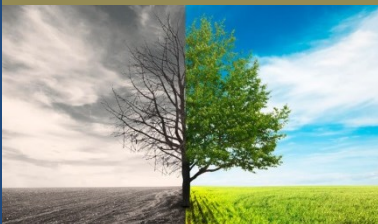
10 KEY TRENDS TO UNDERSTAND SUPPLY CHAIN MANAGEMENT

STATEMENTS



1. Value chain schemes involve a growing complexity for Business Management
2. Needs for Flexibility, Reactivity and Coordination make older models obsolete
3. Technological revolution acts as a trend amplifier

TRANSFORMATION AXIS



4. Operational Excellence forms a powerful approach for transformation plan set up
5. Fully aligned business models are on top of best practices
6. Refocus on green supply chain should / may occur soon

KEY ENABLERS



7. Control of information / data is vital
8. Manager behaviors drive team understanding and involvement
9. Misalignment of skill market and business needs is impacting organization design

10/ TODAY'S SUPPLY CHAIN TRUTH WILL NOT BE APPLICABLE TOMORROW

VALUE CHAIN SCHEMES INVOLVE A GROWING COMPLEXITY FOR BUSINESS MANAGEMENT

KEY TOPIC? COMPLEXITY

ELEMENTS OF UNDERSTANDING?

The complexity of a system is usually defined by the incapacity for a given actor to correctly and entirely understand:

- 1/ The environment surrounding him
- 2/ Other actors' understanding about this environment
- 3/ Nature and purpose of actions led by other actors

Complexity is now inherent to every globalized organization

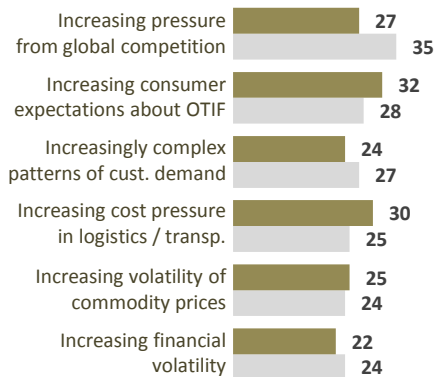
1.1 Globalization and international exchanges booming turned Supply Chains into a giant juxtaposition of actors more or less contributing to value creation for clients. A simple mapping exercise reveals how complex SC became.



1.2 A complexity clearly found in nature of challenges that Supply Chain Managers are facing in execution of daily operations. From strategic to operational layers, topics assessed are pushing further SCM discipline.

TOP 6 Companies' challenges in SCM ¹

% of respondents



■ Over past 3 years
■ Over next 5 years

1.3 Knowing that Over last decade, evolution of consumer needs largely contributed to the multiplication of those challenges

90% Of SC Managers think that demand is fluctuating more rapidly than 5-10 years ago ²

80% Of SC Managers think that consumer expectation on OTIF has increased since 5-10 years ²

It involves higher risks for business activities

1.4 Numerous actors involved and interactions generated combined to higher expectations at customer side (BtoB and BtoC taken together) have extended the exposition of globalized Supply Chain to various risks

How supply chain risk ¹...

% of respondents

... changed overs past few years?



... will change over next 5 years?

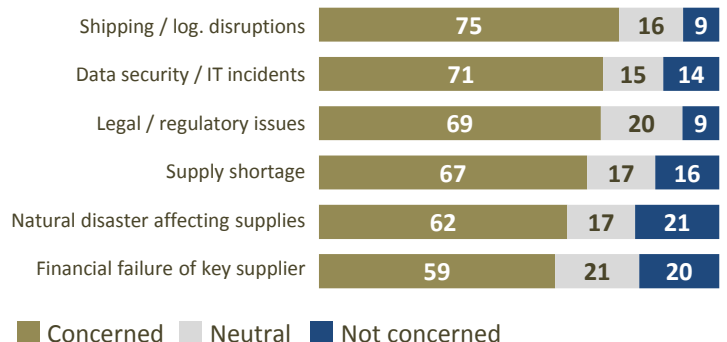


■ Increase ■ No change ■ Decrease

1.5 Among these risks, disruption scenario is the most sensitive one according to SC Managers

Key Supply Chain risk concerns ³

% of respondents



■ Concerned ■ Neutral ■ Not concerned

NEEDS FOR FLEXIBILITY, REACTIVITY AND COORDINATION MAKE OLDER MODELS OBSOLETE

KEY TOPIC? FLEXIBILITY REACTIVITY COORDINATION

ELEMENTS OF UNDERSTANDING?

Facing 21st century stakes, the best Supply Chains are the ones able to combine:

- 1/ The ability to efficiently face demand variabilities (flexibility)
- 2/ The ability to be responsive and shorten lead time (reactivity)
- 3/ The ability to raise / align each function on the exact same level of operational excellence (coordination)

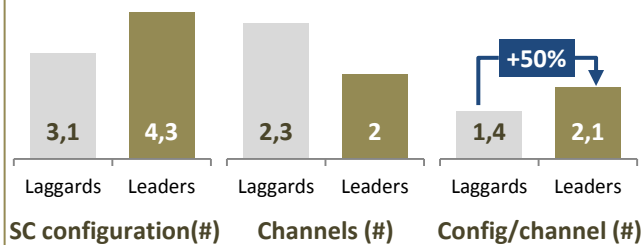
Answering modes used by older models are clearly overstepped

2.1 Potential contribution of Supply Chain Management basics is still underestimated

49% Of SC Managers say that in their company, SC is not understood by CEO and executive Mngt as an "equally important part of business success as sales & marketing or R&D" ¹

2.2 This lack of vision at top management level is penalizing implementation of rupture scenarios

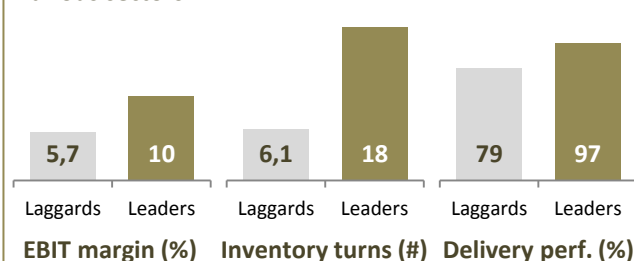
How leaders adapt SC to customer segments²



That conception impacts process efficiency and lowers Supply Chain performance

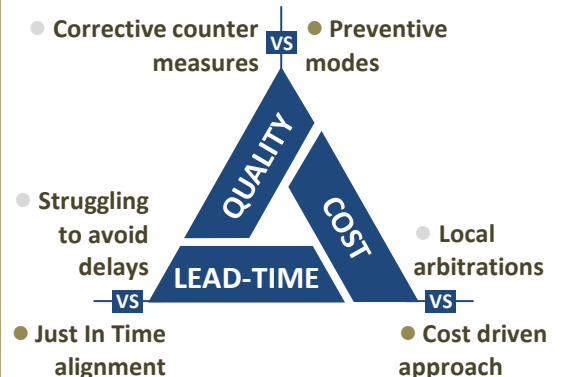
2.4 The comparison between overstepped models and top of the breed actors demonstrates the consistent impact of under performing Supply Chain on company's performance

Supply chain performance assessment comparing leading automotive companies to laggards from various sectors ²



2.3 And daily execution of processes becomes a fire fighter job not allowing to conceive performant and relevant answers for business challenges

2 conceptions of QCD triangle



2.5 It also involves a major risk of losing the customers deceived by the service

- 73%** Of consumer not able to find desired item would purchase it from a different store ³
- 89%** Of consumers are less likely to shop with a retailer who delivers an item at least 1 day late ³

TECHNOLOGICAL REVOLUTION ACTS AS A TREND AMPLIFIER

KEY TOPIC?

TECHNOLOGICAL REVOLUTION

ELEMENTS OF UNDERSTANDING?

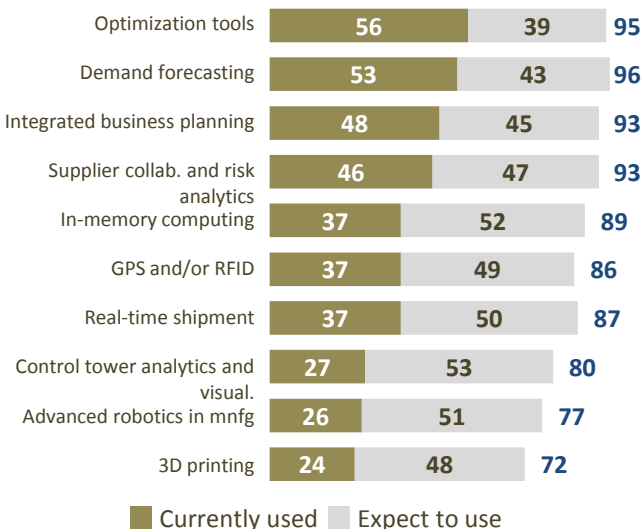
Late technology developments are impacting Supply Chain professions on two distinct axis:

- 1/ Information management (through digital revolution happening on tools themselves and on data mastering with big data analytics or block chain technology development for example...)
- 2/ Process revamping (mainly linked to democratization of advanced technologies as robots, automatized ...)

New technologies are at the center of high expectations for SC managers

3.1 Supply Chain Managers fully rely on newly developed tools to support Supply Chain performance. These new technologies are powerful to higher the level of animation within SC (systemic approach, customer centricity, management systems, performance tracking...).

Top 10 technologies used in Supply Chain¹ % of respondents



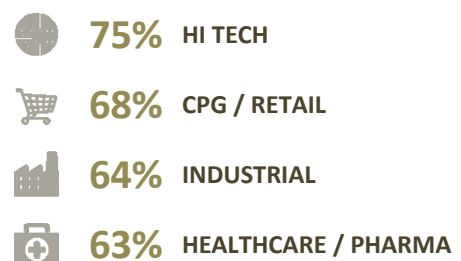
3.2 Among all tools proposed, some are particularly viewed as rupture innovation

Disruptive aspect of innovations for SC strategy²
% of respondents seeing named technology as disruptive



3.3 Adhesion level varies in function of business sectors and nature of existing stakes (pressure on Quality, Costs or lead time...)

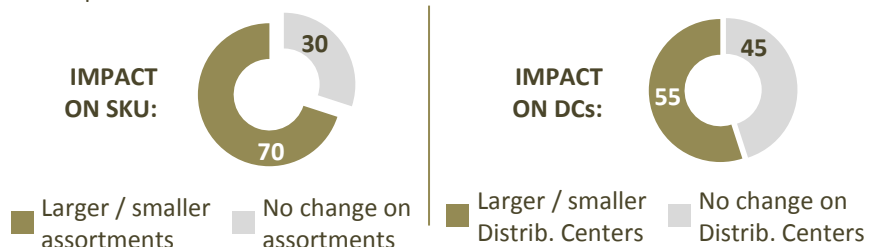
Disruptive aspect of Digital SC per sector²
% of respondents seeing DSC as disruptive



And they are contributing to shake Supply Chain definition

3.4 New technologies are offering to customer a fully new access to the offer generating in return high variability multiplying scenarios and changing the way to approach Supply Chains

Impact of e-commerce and mobile consumers² % of respondents



OPERATIONAL EXCELLENCE FORMS A POWERFUL APPROACH FOR TRANSFORMATION PLAN SET UP

KEY TOPIC? OPERATIONAL EXCELLENCE

ELEMENTS OF UNDERSTANDING?

Operational Excellence is the modern variation of Lean Manufacturing designating the Continuous Improvement mindset used to refocus activities on Value Added expected by customer. Coming from automotive it's articulated around 3 axis:

- 1/ Process stability (waste hunting, process reengineering...)
- 2/ Built in quality (standardization, mistake preventing systems...)
- 3/ Just In Time (continuous flow, closed loops, takt time mngt...)

Profitability is a major concern within Supply Chain performance tracking

4.1 As a main contributor to operating costs, Supply Chain directly drives the operating margin of companies. Assessing, challenging and reducing these costs is now on a daily preoccupation for Managers.

- 86% Of SC Managers quote "Managing profitability of SC" as a significant SC trend making it the first topic (2nd topic quoted being "Reducing total SC cost" with 85% of respondents)¹
- 90% Of SC Managers quote "Minimized costs" as a Leading practice and SC value driver making it the first topic (2nd topic quoted being "Maximum delivery performance" with 87% of respondents)¹

Operational Excellence methodology is now largely spread to improve this profitability

4.2 Major part of organizations have at least a first awareness on Operational Excellence toolbox. Most advanced ones are maintaining a constant rhythm for new workshop implementation.

- 76% Of organizations have "Experience with operational Excellence initiatives"²
- 51% Of organizations consider has important the start of "new initiatives in next few years"²

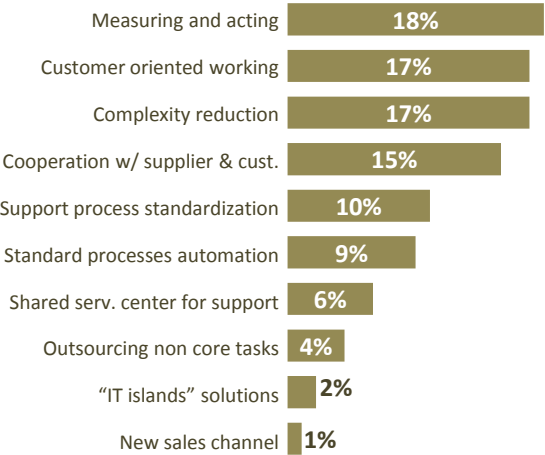
4.3 They mostly used OE as a turnkey methodology to improve process efficiency and introduce a new mindset regarding people development



4.4 Various axis of improvement can be assessed using the Lean toolbox

How Operational Excellence is defined²

% of respondents



FULLY ALIGNED BUSINESS MODELS ARE ON TOP OF BEST PRACTICES

KEY TOPIC? BUSINESS MODEL

ELEMENTS OF UNDERSTANDING?

A Business Model basically defines high level strategy to be deployed by a brand to generate revenues. This model directly drive the organization mindset and impact Supply Chain performance. Most advanced actors (Amazon, Ikea, Zara...) demonstrate higher performances thanks to business models integrating Supply Chain as a structuring element of their DNA.

Best practices of Supply Chain all developed a easily recognizable model

amazon

Sector: E-commerce
Position: "Largest internet based retailer in the world"
Net sales 2015: 107b\$
Employees 2015: 231 000

Business model at a glance:
Always seeking for innovation to gain market share, test new markets and/or drastically reduce prices for customers. Started from book retail in 1994 and spread progressively to become one of Internet big 4 of with Apple, Google, and Facebook. Now in position of 1st non food retailer in several major countries.

Supply Chain alignment:
Supply Chain is supporting cost efficiency model by implementing best of breed processes. Global strategy is including needs regarding logistics capacity extension. It leads to most advanced inventory mngt rules in warehouses, to drone testing for transportation...

IKEA

Sector: Home furnishing retail
Position: "World's leading multi channel home furnishing retailer"
Sales 2016: 34.2b€
Employees: 164 000

Business model at a glance:
Built an entire model on customer experience maximization within furniture market (range rotation, product practicality, good value for money, creation of a shopping experience). Became a case study for marketing students worldwide.

Supply Chain alignment:
IKEA first succeeded in fitting the item development within business environment (short time to market, design to logistics...) while capturing changing expectation of customers. Then SC has always supported both business and profitability needs (successful multi channel implementation, pooling of sourcing for key sub components...).

ZARA

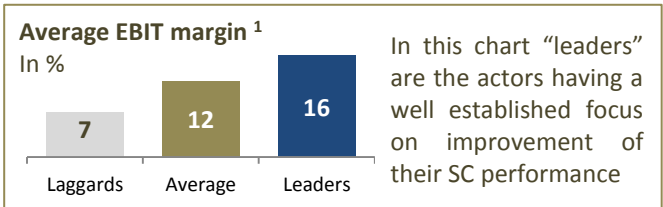
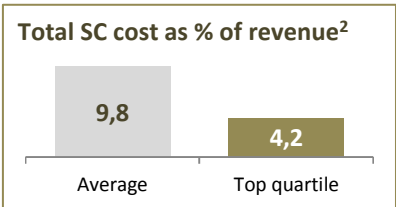
Sector: Garment retail
Position: "One of the world's largest distribution groups"
TO 2016: 23.3b€
Employees: 153 000

Business model at a glance:
Range management is at the center of organization with rotation of collections every 15 days and time to market divided by 4 compared to competitors (1 month vs 4). ZARA is the creator of Fast Fashion approach that is the origin of brand's success (only 18% of items needs to go through sales vs the double for competitors).

Supply Chain alignment:
Footprint is entirely designed to meet time to market needs. Only permanent collections have far shore sourcing, high speed rotation articles are sourced from near shore suppliers (Spain in some cases). Processes are fitted accordingly.

Fully aligned strategies allow Supply Chain Management to express its full potential

"Companies that acknowledge Supply Chain as a strategic asset achieve **70%** higher performance"¹



REFOCUS ON GREEN SUPPLY CHAIN SHOULD / MAY OCCUR SOON

KEY TOPIC?

GREEN SUPPLY CHAIN

ELEMENTS OF UNDERSTANDING?

Emerging from a global awareness around environmental concerns, Green Supply Chain gathers all initiatives led to reduce impact of business activities. As of today, 3 topics have consistent maturity:

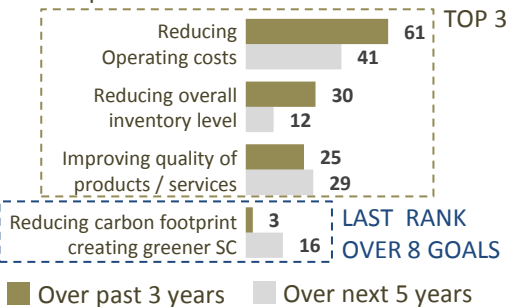
- 1/ Gross reduction of carbon footprint for process
- 2/ Pooling of logistics resources used
- 3/ Modal transfer of transportation needs

Green Supply Chain softly appears
among preoccupation list of SC Manager

6.1 Environment is still far from trendiest topic but it's regularly progressing since early 2000s following customer expectation for a "greener" consumption.

Companies' top goals for SCM ¹

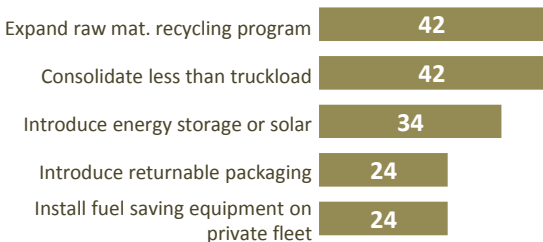
% of respondents



6.2 Various areas of improvement have been targeted by companies. Optimization of physical flow is the most promising one, being supported by different types of initiatives.

TOP 5 decisions taken for sustainable transports²

% of respondents

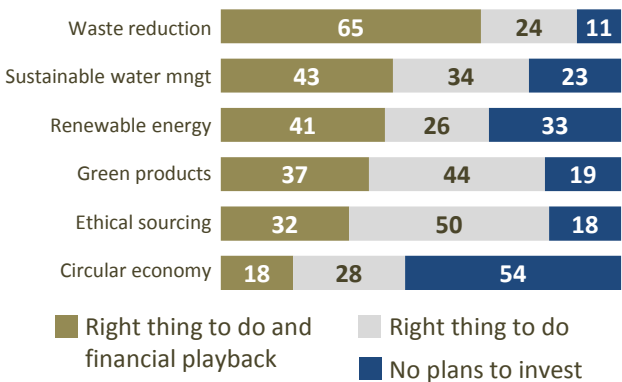


But concrete applications are driven
by expected gains on economic side

6.3 At this stage, cost savings frequently lie behind Green Supply Chain implementation explaining the relative lateness of concept implementation

Motivation behind green investment³

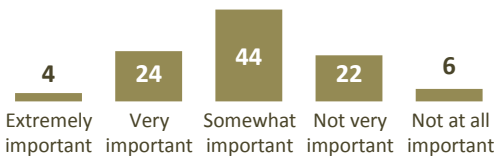
% of respondents



6.4 And nature of business relationships is not pushing further developments

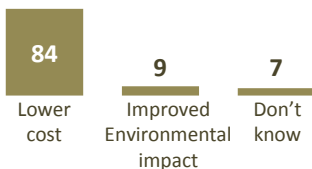
How important are sustainable / green initiatives in purchasing decisions²

% of respondents



What is more important to your customer²

% of respondents



KEY TOPIC? INFORMATION

ELEMENTS OF UNDERSTANDING?

Daily Management of Supply Chains is pushing the need for a more transversal vision over business activities. Data handling become critical to capture this vision and take arbitration accordingly.

KPI definition (calculation method, scope, target, top down cascading...) and dashboard set up are a basis to give Managers the right levers to drive SC efficiency.

Manual and overpassed handling of data is still the norm for a major part of organizations

7.1 Supply Chain Managers are largely unsatisfied regarding the mode used for data handling in their organization. Lack of vision on activity is highly penalizing as it reduces the capacity to understand activity profiles, profitability conditions and develop answering modes for each upcoming scenario.

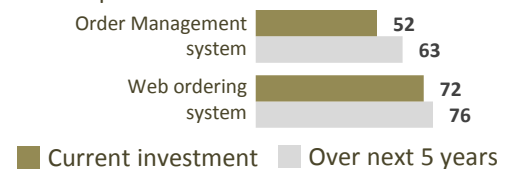
86% Of SC Managers “don’t feel strongly that their company has the right tools or resources in place to communicate effectively with executives about SC performance or decisions”¹

79% Of SC Managers “report that they do not use advanced modeling techniques to inform business challenges or issues in SCM very often”¹

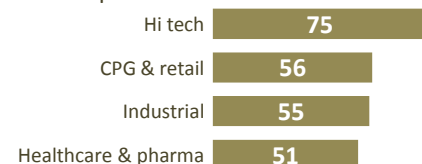
Whereas Information Systems are now fitted to build a full vision over SC efficiency

7.2 Economical actors are progressively investing on this axis (with various appetites) in order to catch up

Coming investments for healthcare sector²



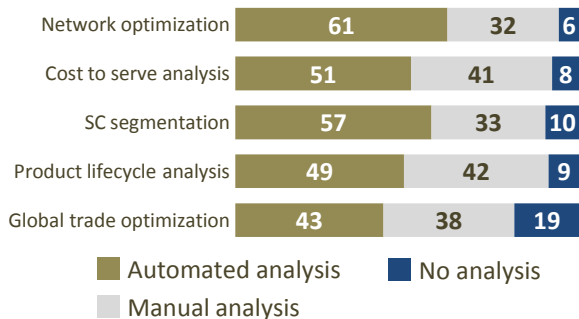
Disruptive aspect of cloud computing/sector³



7.3 Basic exercises and routines of SC Management are benefiting from automatization of data treatment

Data handling used per optimization area³

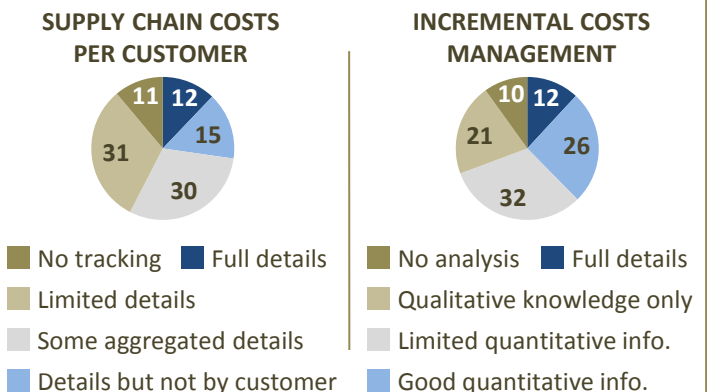
% of respondents



7.4 Most advanced actors are using information to have a full understanding of performance before initiating actions

Level of analysis used for advanced analysis⁴

% of respondents



KEY TOPIC? MANAGER BEHAVIOR

ELEMENTS OF UNDERSTANDING?

The right animation of Supply Chain (systemic approach, customer centricity, combination of right tools / mngt systems / performance tracking) entirely rest upon SC Managers capacity to:

- 1/ Create a strategical vision coming from business model and impacting Supply Chain implementation
- 2/ Align the organization on this strategical vision with an important focus on people understanding and commitment
- 3/ Set up and respect Management routines that will support performance tracking and business efficiency research

SC Managers became the rare birds of modern organizations

8.1 SC Managers need to constantly balance their job between strategic and operational levels, between profitability focus of steering committees and “hands on” arbitration requested by middle management. In terms on profile, it results in an interesting mix able to drive transformation plans that come ahead of Supply Chains.

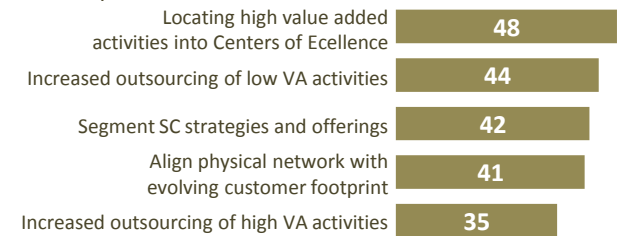
Skills needed for executive profile in 2020¹

% of respondents



TOP 5 likelihood to change SC operating model²

% of respondents



Definition of a vision for Supply Chain at Top Management level is a powerful enabler

8.2 General awareness of Top Management regarding Supply Chain stakes is now globally good. But vision on applicable scenarios and understanding of sensitivities is still weak.

69% Of SC Managers “say executives and business decision makers are concerned about SC issues impacting revenue and profitability”³

34% Of SC Managers “believe executives in their company have a great deal of understanding of the performance of the company’s SC”³

CEO involvement in managing Supply Chain⁴

% of respondents



MISALIGNMENT OF SKILL MARKET AND BUSINESS NEEDS IS IMPACTING ORGANIZATION DESIGN

KEY TOPIC? SKILLS

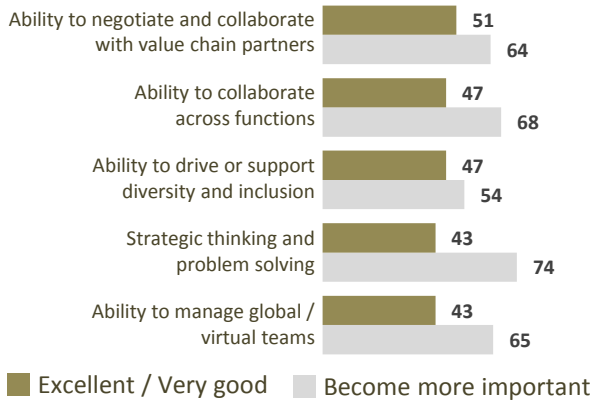
ELEMENTS OF UNDERSTANDING?

Looking at all the functions and positions involved in a Supply Chain, the Human Resource Management is inevitably a complex puzzle. Ignored for a while by management education world, the needs for logistics competencies is not fully matched today. A situation fed by the changing environment and the new challenges appearing regularly for SC people.

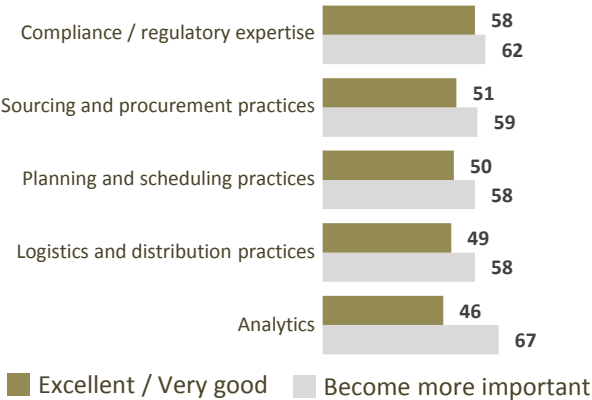
Resources of Supply Chain form a combination of several different natures of competencies

9.1 Know-hows and soft skills are both part of the package needed by leaders driving Supply Chains (for middle Management to operational levels)

Top 5 management skills for SC resources¹ % of respondents



Top 5 technical skills for SC resources¹ % of respondents



And talent acquisition is a challenging exercise

9.2 Facing difficulties to identify and keep Supply Chain talents, organizations adapt their fishing approach

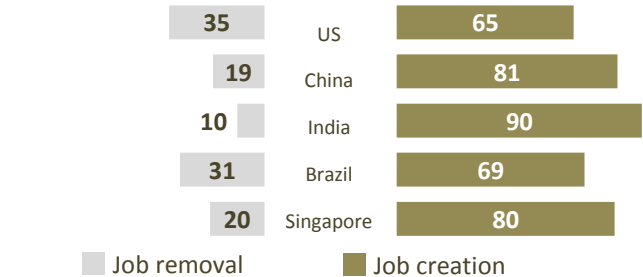
Talent acquisition tendencies over 5 next years¹ % of respondents



18% Of SC Managers “agree strongly that their company has the ability to attract and retain the right talents for Supply Chain Management”²

9.3 An adaptation quickly needed as job creations are increasing in Supply Chain field for most of the markets worldwide

Supply Chain job creation balance³ % of respondents per country



Sources: 1: Supply Chain Talent of the Future, Deloitte, 2015 / 2: Supply Chain impact survey, Cap Gemini, 2013
3: Future of Supply Chain, SCM World, 2015