

**Data Set for Research Paper:**  
***SMEs and Supply Chain Digital Transformation: Challenges and Opportunities***  
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**RESPONSES TO SUPPLY CHAIN MANAGEMENT QUESTIONNAIRE**

What is your role in the company?

<b>Role of Respondent in the Company</b>	<b>No. of Responses</b>	<b>% of Total</b>
CEO (or President)	15	(44.12%)
General Manager or Department Head	7	(20.59%)
Vice President or Senior Vice President	3	(8.82%)
Other (Specify in box.)	9	(26.47%)

Which of the following best describes your company?

<b>Company Description</b>	<b>No. of Responses</b>	<b>% of Total</b>
Other (Specify in box.)	14	(41.18%)
Manufacturing	8	(23.53%)
Service Provider	5	(14.71%)
Consulting	4	(11.75%)
Distributing	2	(5.88%)
Transportation	1	(2.94%)

Healthcare, General Contractor, Construction, Finance-Mortgage Banking, Education-High School, Conventional Supermarket, Development, Retail, Public Media Station, Retail Grocer, Residential and Commercial Solar Installation and Commercial Electric Contractor, Retail Sales, Chamber of Commerce, Advertising.

What is your company's size in revenue?

<b>Revenue Size</b>	<b>No. of Responses</b>	<b>% of Total</b>
Less than \$10 million	22	(64.71%)
\$10 million to \$50 million	6	(17.65%)
Greater than \$1 billion	2	(5.88%)
\$50 to \$100 million	1	(2.94%)
\$100 to \$500 million	1	(2.94%)
\$500 million to \$1 billion	1	(2.94%)

Which of the following technologies does your company use to support the company's supply chain? Please select all that apply.

Technology	Currently Using	
	No. of Responses	% of Total
Artificial intelligence	4	(12.12%)
Automatic programs for predictive/preventive maintenance	11	(33.33%)
Automatic vehicles or drones	1	(3.03%)
Blockchain	0	(0.00%)
Cloud computing and storage	30	(88.24%)
Distributed ledger	1	(3.03%)
Industrial Internet of Things (IoT)	3	(9.09%)
Inventory optimization tools	13	(38.24%)
Network optimization tools	17	(50.00%)
Other robots	2	(5.88%)
Sensors or automatic identification	12	(35.29%)
Wearable and mobile technology	7	(21.21%)
3D printing	2	(6.06%)

Which of the following are supply chain challenges that your company faces?

Note: For writeup in the article, the percentages for Sometimes Challenging and Always Challenging were summed and reported together.

Supply Chain Challenges	Sometimes Challenging		Always Challenging	
	Count	Percentage	Count	Percentage
Customized products/services	17	(51.52%)	9	(27.27%)
Cyber security risks	17	(50.00%)	12	(35.29%)
Demand forecasting	20	(58.82%)	9	(26.47%)
Faster response times	12	(36.36%)	10	(30.30%)
Hiring/retaining qualified workers	14	(42.42%)	14	(42.42%)
Implementing sustainability	14	(42.42%)	6	(18.18%)
Increasing competitive intensity	11	(33.33%)	13	(39.39%)
Insight into customer behavior	18	(54.55%)	9	(27.27%)
Insight into supply and demand	16	(50.00%)	8	(25.00%)
More frequent shipments	13	(41.94%)	4	(12.90%)
Omnichannel fulfillment/unified commerce	7	(23.33%)	2	(6.67%)
Out-of-stock problems	16	(50.00%)	5	(15.63%)
Product and material level transparency	13	(43.33%)	3	(10.00%)
Rising customer service expectations	14	(42.42%)	12	(36.36%)
Smaller shipments	13	(43.33%)	4	(13.33%)
Supply chain transparency	14	(43.75%)	6	(18.75%)
Synchronization of the supply chain	14	(45.16%)	5	(16.13%)
Visibility of inbound/outbound shipments	14	(45.16%)	2	(6.45%)

<b>Preparation for changes in the next 10 years</b>	<b># Responses</b>	<b>% of Total</b>
Partnering with vendors to better understand applications and benefits	24	(27.59%)
Reskilling and training workers for emerging technologies	15	(17.24%)
Increased investment/budget for innovative technologies	14	(16.09%)
Begin piloting new technologies	12	(13.79%)
Recruiting for different skill sets to align with future needs	12	(13.79%)
Changing organizational structure/incentives to create an innovative culture.	9	(10.34%)
Other (Specify in the box.)	1	(01.50%)

What amount is your company committed to investing in supply chain technologies over the next three years?

<b>Amount Committed to Invest in Supply Chain Technologies over Next Three Years</b>	<b>No. of Responses</b>	<b>% of Total</b>
Less than \$5 million	23	(69.70%)
Do not know	8	(24.24%)
\$10 million-less than \$50 million	1	(03.03%)
\$1 million-less than \$5 million	1	(03.03%)

What actions related to the supply chain is your company taking to prepare for changes in the next 10 years?

<b>Preparation for changes in the next 10 years</b>	<b>No. of Responses</b>	<b>% of Total</b>
Partnering with vendors to better understand applications and benefits	24	(27.59%)
Reskilling and training workers for emerging technologies	15	(17.24%)
Increased investment/budget for innovative technologies	14	(16.09%)
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Changing organizational structure/incentives to create an innovative culture.	9	(10.34%)

Do your employees currently have the skills they need for supply chain digital transformation?

<b>Current Employee Skills</b>	<b>No. of Responses</b>	<b>% of Total</b>
Communication and interpersonal skills	24	17.27
General business acumen and cross-functional knowledge	22	15.83
Project management	15	10.79
Data manipulation skills (data modeling, management)	13	09.35
Systems implementation	12	(08.63%)
Analytics, modeling, visualization	10	(07.19%)
Change management	10	(07.19%)
Visualization/graphic design	8	(05.76%)
Process improvement/lean/Six Sigma	8	(05.76%)
Statistics and quantitative skills	7	(05.04%)
Global experience and cultural diversity	5	(03.60%)
Supply chain management (e.g., degrees/certification programs)	2	(01.44%)

What are your company's current challenges related to employees?

<b>Challenges Related to Employees</b>	<b>No. of Responses</b>	<b>% of Total</b>
Finding talent	25	(22.73%)
Managing different generational working habits and expectations	17	(15.45%)
Hiring talent	14	(12.73%)
Retaining talent	14	(12.73%)
Reskilling and training existing staff	13	(11.82%)
Measuring/differentiating/rewarding talent among existing staff	10	(9.09%)
Offering top performers compelling career progression	10	(9.09%)

How helpful would it be for local universities to offer customized training designed to train your employees in specific skills needed for your supply chain efforts?

<b>Helpfulness of Potential Customized Training offered by Local Universities</b>	<b>No. of Responses</b>	<b>% of Total</b>
Somewhat helpful	19	(57.58%)
Very helpful	09	(27.27%)
Not helpful	05	(15.15%)

How important do you feel the following supply chain training topics are?

Note: for the writeup in the article, Somewhat Important and Very Important were summed and reported together.

Supply Chain Training	Somewhat Important		Very Important	
	No.	% of Total	No.	% of Total
Analytics, modeling, and visualization	17	(53.13%)	13	(40.63%)
Change management	16	50.00%	13	(40.63%)
Communication and interpersonal skills	07	(21.21%)	25	(75.76%)
Data manipulation (data modeling and data management)	15	(45.45%)	15	(45.45%)
General business acumen and cross-functional knowledge	08	(24.24%)	24	(72.73%)
Global experience and cultural diversity	16	(50.00%)	8	(25.00%)
Process improvement/Lean/Six Sigma	15	(45.45%)	15	(45.45%)
Project management	09	(27.27%)	21	(63.64%)
Statistics/quantitative skills	15	(45.45%)	15	(45.45%)
Strategic/problem-solving/critical thinking	06	(18.18%)	26	(78.79%)
Supply chain management (e.g., degrees/certification)	19	(57.58%)	10	(30.30%)
Systems implementation	18	(54.55%)	12	(36.36%)
Visualization/graphic design	13	(40.63%)	11	(34.38%)