BSNA Journey Mapping RESEARCH OUTCOMES



MARCH 2022 | NELL RICE



Primary Colors Typography Colors Sage Onyx Rust Drab #324755 #87BCBF #D97D54

Secondary Colors









The Customer Experience and Design team was engaged to model a series of customer journeys in the applied, commercial, light commercial, residential, and parts market segments.

GOALS:

- purchasing equipment, parts, and/or ancillary supplies.
- identifying potential service gaps and bottlenecks.

Investigate the current state purchasing journey for mechanical contractors and residential dealers when buying from Johnson Controls and other equipment manufacturers.

Gather critical insights regarding customer needs, preferences, expectations, and pain points when

Assess hypotheses, customer buying preferences, and purchasing journey patterns toward

Build a series of customer journey maps to measure and visualize customer touchpoints in context of the purchasing journey they are navigating and identify value creation opportunities.

PROJECT OVERVIEW

The practice of customer journey mapping seek of an organization.

This report outlines high-level customer journey maps based on customer and stakeholder interviews, including analysis of findings and forward-looking recommendations.

METHODS

STAKEHOLDER INTERVIEWS

CUSTOMER INTERVIEWS

Stakeholders participated in conversations to better understand their perception of the current-state customer purchasing journey.

Mechanical contractors and dealers were recruited to participate in 60-minute, individual interviews where they were asked to share their insights and experiences when purchasing from JCI and other OEMs.

The practice of customer journey mapping seeks to model the experiences of an individual as a customer

This research sought to gain cusomter insight relative to the following key questions toward informing the development of a larger sample customer survey:

Where are mechanical contractors purchasing equipment, parts, and supplies? And how are they completing these purchases (in person, e-commerce, phone, etc.)?

2 What influences their decision regarding which equipment manufacturers they opt to do business with? What influences their decision regarding supply channels?

What would influence a mechanical contractor to change from one manufacturer to another? What would influence them to change supply channels?

4

Do mechanical contractors prefer OEM/proprietary equipment and parts versus generic or universal?

5

3

What do Mechanical contractors prefer with respect to one-stop shopping and support? Why?

6

What are Mechanical contractor expectations with respect to service level and response time from their chosen manufacturers and/or supply channels?

PROJECT SCOPE

This project was originally scoped to facilitate the development of journey maps around the following purchasing scenarios:

A CONTRACTOR - APPLIED / COMMERCIAL / LIGHT COMMERCIAL

- Mechanical contractor looking to buy system (complex building)
- Mechanical contractor looking to design / bu (mid-market building)
- Mechanical contractor looking to design / bu (light comm. building)

B DEALER - RESIDENTIAL

4

2

3

Dealer looking to buy residential equipment + ancillary supplies

Mechanical contractor looking to buy system (equipment bundle + ancillary supplies) for a Hospital

Mechanical contractor looking to design / buy system (equip. bundle + ancillary supplies) for a K-12 school

Mechanical contractor looking to design / buy system (equip. bundle + ancillary supplies) for a retail outlet

PROJECT SCOPE (continued)

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9

10

11

CONTRACTOR / DEALER - post-sale journey \square



CONTRACTOR / DEALER - mixed journeys

- - Mechanical contractor looking for applied and commercial parts

Mechanical / service contractor looking for commercial parts for equipment under warranty

Mechanical contractor bidding on an applied job; has simultaneous need for commercial equipment on a different job

Mechanical contractor looking for light commercial equipment and residential equipment to serve 2 different jobs

Mechanical contractor looking for applied parts; has simultaneous need for light commercial equipment for a different job



PROJECT LIMITATIONS

- Respective to the intial scope and goals of this project, we encountered the following limitations:
 - A limited pool of customers were provided for focused interviews relative to project scope.
 - 10 mechanical contractors in the post-sales and parts segments
 - 15 mechanical contractors in the light commercial and residential segments
 - We experienced a low response rate to interview requests despite outreach efforts
 - 5 mechanical contractors in the post-sales and parts segments
 - 3 mechanical contractors in the light commercial and residential segments
 - We were unable to secure interview participants in the applied market segment

segments and related to some purchasing scenarios could not be synthesized.

As a result of these limitations, reliable inferences related to the customer experience within some market

STAKEHOLDER DEMOGRAPHICS

taking, their perception of associated pain points, and desired outcomes.

STAKEHOLDER INTERVIEWS

PARTICIPANT	ROLE	MARKET SEGMENT
Stakeholder 1	VP, Equipment Sales	Applied / Commercial
Stakeholder 2	Director, Factory Direct	Light Commercial / Residential
Stakeholder 3	Senior Manager / Aftermarket Parts	Post-Sales / Parts

3 stakeholders were interviewed to better understand the journeys their customers are currently



CUSTOMER DEMOGRAPHICS

8 mechanical contractors participated in 60minute, individual interviews.

During each interview session, they were asked to speak to a purchasing scenario based on the market segment in which they work; including the equipment and supplies required to fulfill the needs of the scenario.

PARTICIPANT	ROLE	MARKET
Participant 1	Service Coordinator	Post-Sales / Parts
Participant 2	Account Manager	Post-Sales / Parts
Participant 3	VP of Sales	Post-Sales / Parts
Participant 4	Director of Operations	Post-Sales / Parts
Participant 5	Applied Service Manager	Post-Sales / Parts
Participant 6	Office Manager	Light Commercial / Residentia
Participant 7	Owner	Light Commercial / Residentia
Participant 8	Owner	Light Commercial / Residentia



Customer Journey Maps

Post Sales / Parts Mid / Light Commercial Residential



CUSTOMER JOURNEY - Post Sales / Parts

JOURNEY STAGE		DISCOVERY	TROUBLESHOOTI & ISSUE DIAGNO
OVERVIEW		A service call is received to the mechanical contractor requesting assistance with an issue or outage.	Troubleshooting and diagno are conducted to determine cause of the outage or issue
CUS	TOMER IVITY	Any troubleshooting that may be done ahead of dispatching a service technician is completed. This may include running diagnostics and/or information gathering to pre-determine the nature of the repair and necessary parts	If the issue may be resolved site facility maintenance personnel, they will identify issue and parts needed independently or with remot support from the mechanica contractor. If it may not be resolved, a s technician is dispatched to t facility to conduct an assess
S	DIGITAL	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knor Exchange
HPOINT	PHONE	PhoneMobile Text	PhoneMobile Text
TOUCH	PRINT	 Service Manuals & Materials Product Catalogs 	 Service Manuals & Mate Product Catalogs
	PHYSICAL		In-Person site visit
CHA & PA	ALENGES AIN POINTS	 Many situations are urgent and require expedited service Facilities maintenance personnel may be ill-equipped to identify issues 	 Some technicians must a get to the facility or job s Identification of the issue necessitate transmission diagnostics, equipment readings, photos, and via sometimes creating a lo back and forth commun

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IDENTIFICATION OF PARTS NEEDED

PRICING & Availability

stics the	Or iss too res	nce the cause of the outage or bue is determined, the parts, ols, and supplies needed to solve it are identified.	Th with or pa de	e mechanical contractor works th their chosen supply channel manufacturer to determine rts availability, pricing, and livery timeframes.	TI th su ite	he neir upp em
by on- che l ervice ne ment.	Fac se iss the Th ass ap me pre	cilities personnel and/or the rvice technician assesses the ue and relay items needed to e mechanical contractor. is may involve getting sistance identifying the propriate parts either from the echanical contractor or their eferred supplier.	Th en ch De pre the inc thi Fo loc fas	e mechanical contractor will gage their preferred supply annel for proprietary parts. Ppending on urgency, when eferred parts are unavailable, ey may investigate alternates; cluding used parts or parts from rd party sources. It generic or universal parts, they ok for the least expensive and/or stest fulfillment option.	Th tc in su po th th th fr w	he o pl osta upp oss ne s ne s ne s ne s ne s ne s ne s ne
	•	Email Mobile Device Computer	•	Email Mobile Device Computer	•] (
wledge		Online Resources & Knowledge Exchange		Online Resources & Knowledge Exchange	•	ę
	•	Phone Mobile Text	•	Phone Mobile Text		
ials	•	Service Manuals & Materials Product Catalogs	•	Service Manuals & Materials Product Catalogs	•	(
	•	In-Person site visit In-Person Supplier visit		In-Person Supplier visit		1
ravel to site		Identifying equipment when the serial number is missing or illegible		Parts catalogs and inventory may be inaccurate or outdated.		lr o
of	•	Manuals and/or online resources may be inaccurate or		may be out of stock.		E ir O
leos; of cation.		outdated. Extended response time on inquiries requiring deeper	•	Lengthy delivery timeframes Extended response times on		Ir ai b
		Retired or outdated equipment where replacement parts may		Facilities prefer new, proprietary parts; which may be difficult to		P a' le
		no tonger be available.		The need to go to multiple suppliers to source items		E e

ORDER	
PLACEME	NT

ORDER CONFIRMATION

PICK U OR DELIV

e mechanical contractor places ir order through their chosen oply channel or purchases the ns in-store.

e mechanical contractor is able blace their order online in some ances through their chosen ply channel. When this is not sible, they communicate with supply channel, who places order on their behalf.

mechanical contractors who k with direct or indirect supply nnels, if items are unavailable n their supply channel, an order be placed with manufacturer.

Email Mobile Device

- Computer
- e-commerce platform

Phone

Mobile Text

Service Manuals & Materials Product Catalogs

In-Person Supplier visit

nability to expedite urgent orders.

Extended leadtimes and naccurate delivery dates and/ or timeframes.

naccurate inventory or pricing and/or parts that have not yet been entered into the system.

Products out of stock or only available with significant eadtime.

Extended response times on email and phone inquiries.

At the conclusion of order placement, a purchase order number is provided.

Products are shipped when the order is fulf

Once the order is placed, the mechanical contractor may automatically receive or request to receive an invoice and/or order confirmation that includes the purchase order number.

If an order is fulfilled on-site in an OEM store location, the mechanical contractor will receive documents related to the order as well as transactional receipts for any items purchased outright.

Email
Mobile Device
Computer

- e-commerce platform
- PhoneMobile Text
- Invoice
- Receipt (in-store transactions)
- In-Person Supplier visit
- "Word-of-mouth" order confirmations.
- The need to call or email to receive order information including invoices & POs.
- Order entry inaccuracies and mistakes made at the supply channel level.
- Inaccurate inventory or pricing and/or parts that have not yet been entered into the system.
- Poor response times on order related inquiries made by phone or email.

The mechanical contr receives a delivery tin the time the order is p some instance this is a

Orders are commonly FedEx and UPS; but m up or delivered by a c are available locally.

Items are occasionally damaged in transit; re investigation through and replacement.

- Email
 Mobile Device
 Computer
 Online Resources & Exchange
 Phone
 Mobile Text
 Invoice
 Order Confirmation
 Carrier Tracking Infe
 Delivery Updates
 In-Person Supplier
 The need to follow-for email on shipping expectations.
- Lost or damaged it carrier level.
- Slow recover time are lost/damaged
- lengthy RMA proce
- the need to reorder damaged items and reimbursement.
- incorrect deliveries

P 'ERY	INSTALLATION	TROUBLESHOOTING (as needed)
or picked up illed.	Once a product is delivered, it is inspected. If no issues are identified, the product is installed.	Once installation is complete, if an issue arises, the service technician performs troubleshooting and, as needed, re-engages the mechanical contractor
ractor neframe at blaced; in automated. shipped via hay be picked ourier if they y lost or equiring an the carrier	The mechanical contractor receives the part and inspects it to make sure it is not only correct but has arrived undamaged and ready for installations. In some instances, this may be handled by the service technician or facilities maintenance personnel.	During installation, if an issue occurs, the service technician or facilities maintenance personnel will perform troubleshooting and, as needed, re-engage the mechanical contractor as needed. If parts and service is unable to determine the cause of the issue, they may engage additional levels of product support including the supply channel and manufacturer.
& Knowledge	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knowledge Exchange
	PhoneMobile Text	PhoneMobile Text
on nformation	 Service Manuals & Materials Product Catalogs 	 Service Manuals & Materials Product Catalogs
er visit	 In-Person site visit 	 In-Person site visit
r-up by phone Ng	 Defective and/or damaged parts. 	 Slow response via phone or email when issues require escalation to supply channel.
ems at the	Lengthy RMA and/or warranty processes for defective/ damaged parts	 The need to provide "evidence" or return a part that is defective
when items	Duplicate orders	ahead of replacement.
in transit.	Incorrect deliveries (fault of	
esses	supplier or carrier).	Defective/Damaged parts
r lost or ead of	 Incorrect parts or incorrect kits (fault of supplier). 	 Slow RMA and Warranty processes.
S	incorrect deliveries	 Incorrect parts or incorrect kits (fault of supplier).

CUSTOMER PREFERENCES - Post Sales / Parts

JOURNEY STAGE	DISCOVERY	TROUBLESHOOTING & ISSUE DIAGNOSIS	IDENTIFICATION OF PARTS NEEDED	PRICING & AVAILABILITY	
WANTS	Accurate Identification of issue. Accurate identification of parts needed. The most convenient solution for the issue and based on the warranty status of the equipment.	Accurate Identification of issue. Accurate identification of parts needed. The most convenient solution for the issue and based on the warranty status of the equipment.	The means to quickly and accurately identify parts with a minimum of effort and/or need for assistance. Rapid response when additional assistance is required or requested.	<text><text><text><text></text></text></text></text>	The accu mini assis Avai parts obta Accu time and Rapi assis requ
NEEDS	 Accuracy Responsiveness Immediate availability of information 	 Accuracy Responsiveness Immediate availability of information Local solutions 	 Autonomy Accuracy Responsiveness Immediate availability of information 	 Autonomy Accuracy Availability Competitive Pricing Responsiveness Information 	
PREFERRED TOUCHPOINT	Telephone or text message.	In-person, over the phone, and via digital communication (text or email).	Through a digital and/or e- commerce platform.	Through a digital and/or e- commerce platform.	Cust own error orde prefe
RESPONSE TIME	Customers prefer an immediate response whenever possible to minimize downtime for their customers.	Customers prefer an immediate response whenever possible to minimize downtime for their customers.	Same-day; so items may be shipped or orders may be placed as soon as possible.	Same-day; so items may be shipped or orders may be placed as soon as possible.	Sam ship as so



ne-day; so items may be pped or orders may be placed soon as possible.

ORDER PLACEMENT

ORDER CONFIRMATION

PICK OR DEL

means to quickly and urately facilitate an order with imum effort and/or need for ance.

ilability of common or critical s such that they may be ned when needed.

urate leadtimes and delivery l service related planning.

oid response when additional stance is required or ested.

Automated confirmation of order placement and invoice including purchase order number and delivery expectations.

Availability of order placement and invoice including purchase order number and delivery information online for self-service

eframes to facilitate logistical Rapid response when additional assistance or information is required or requested.

Automated shippin leadtime changes, updates, and tracki

Simplified process damaged-in-transit rapid replacement pocket expense.

Simplified RMA pro

Leadtime and deliv

Autonomy

- Accuracy
- Availability
- Information
- Accurate Leadtimes
- Ability to Expedite
- Responsiveness

- Automated Order Communications
- Autonomy
- Availability
- Responsiveness
- Information

- Automated Orde Communication
- Accurate Leadt
- Expedited Reso errors
- Responsivenes
- Information
- Supplier owner errors

stomers prefer to place their n orders, as this cuts down on ors where the wrong part is ered. They find digital platforms erable for this.

Customer prefer digital deliver and continued access to order information; such as: purchase orders, invoices, order confirmations, and delivery timeframes.

Customer prefer digit continued access to delivery related info

Customers prefer on information related t damaged shipments

Their backup touchp is phone or email.

Same-day; so items may be shipped or orders may be placed as soon as possible.

Immediately after order placement, customer would also like continuous availability of this information without requiring a telephone call or email.

They expect a 24 hour delivery timeframe for expedited orders and no more than one week for items that are not urgently needed.

They would like then same timeframe for replacements.

Ρ		
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INSTALLATION

TROUBLESHOOTING (as needed)

g updates, delivery ng access. around lost or items with at no out-of- cesses. ery accuracy	The correct part or kit, as ordered. Undamaged and undefective parts (defects are rare.) Accurate and timely delivery	 Troubleshooting support when needed Expedited replacement of damaged or defective parts Undamaged and undefective parts Replacement processes that do not generate out-of-pocket expenses Timely response to emails and/or phonecalls.
er is imes lution of Carrier S	 Expedited replacement when needed Responsiveness Information 	 Expedited replacement when needed Responsiveness Supplier ownership of defective, inaccurate, or damaged products
tal deliver and shipping and mation. line o lost or	Email or telephone communication with rapid follow-up when issues arrive; including the expedited replacement of defective/ damaged items.	Email or telephone communication with rapid follow-up when issues arrive. This includes the expedited replacement of defective/ damaged items at no out-of- pocket expense.

If an item is defective, damaged, or in some way incorrect on arrival; the customer needs a rapid replacement process.

When troubleshooting at time of installation is needed, they do not want the service technician to have to leave the site or to pay for time waiting for a response from a supplier.

in the event of a defective/ damaged product or incorrect product/kit; the customer would like to see an expedited replacement ahead of the return and/or credit.

CUSTOMER JOURNEY - Mid/Light Commercial - PLAN & SPEC

JOURNEY STAGE	SELECT JOBS TO BID	BI
OVERVIEW	The mechanical contractor investigates bidding opportunities.	The mechanical equipment and complete a job quantities to the request for price A product speci works through a mechanical con project and price
CUSTOMER ACTIVITY	Mechanical contractors identify bidding opportunities and project leads in a variety of ways. This can include- but is not limited to- local, government, and online resources for bids, contracts, and requests for proposal.	 The mechanical specifications a with a request t builds out the p provides a quot Once the price i mechanical con proposals to the them. Contractors typ bids from differences of or

CUSTOMER JOURNEY - Mid/Light Commercial - DESIGN BUILD

JOURNEY STAGE	DESIGN	PROJE
OVERVIEW	The mechanical contractor assembles a team to create a proposal around the design and construct a project according to the owner's instructions and specifications.	The mechanical equipment and complete a job a quantities to the request for prici
CUSTOMER ACTIVITY	The mechanical contractor works with the business or construction company to determine what the needs of the site are and develop a plan to deliver.	The mechanical specifications are with a request to builds out the p provides a quote
	In many instances, these are jobs the mechanical contractor receives from either individuals they have done business with in the past, or individuals who have learned of the mechanical contractor by reputation.	Once the price i mechanical con proposals for the requesting them
	Some may be jobs they investigate and source.	Contractors typi bids from differe

on job

l contractor determines the quantities needed to and provides those eir preferred suppliers with a

ist from the supplier iy issues with the tractor and builds the

l contractor reviews the job and reaches out to a supplier to bid. The product specialist roject and price and

s negotiated and met, the ract will submit their bid individuals requesting

ally get a minimum of 2-3 nt suppliers; and more for large jobs.

PROVIDE SUBMITTALS

The submittal is a contract document that confirms what the supplier is providing on a project including equipment specifications, function, etc.

The submittal is provided by the supplier to the mechanical contractor and serves as a confirmation of what the supplier is providing on the project. This is part of the contract chain and includes the equipment specifications, function, pricing, etc.

In equipment, generally, multiple OEMs provide competing bids, as well as independent suppliers. This can be regional or localized, depending on the market and is highly variable.

Once a submittal is approved and the OEM has defined the scope of what will be provided, the mechanical contractor sends the approval to the OEM. This may be immediate or the approval may be held as part of the project cadence.

The order will be completed and order confirmations, delivery dates, shipping information, and invoices will be provided.

PROPOSAL

contractor determines the uantities needed to nd provides those ir preferred suppliers with a

st from the supplier y issues with the ractor and builds the

contractor reviews the job nd reaches out to a supplier b bid. The product specialist pject and price and

s negotiated and met, the ract will submit their bid e job to the individuals

ally get a minimum of 2-3 nt suppliers; and sometimes 6 or more for large jobs.

PROVIDE SUBMITTALS

The submittal is a contract document that confirms what the supplier is providing on a project including equipment specifications, function, etc.

This is shared with the construction company to make sure the project is within budget and coordinate scheduling and project cadence.

For equipment, the mechanical contractor will engage their preferred supplier for a quote. In some instances, they may go to multiple OEMs for competing offers, but many have specific brand loyalties.

The mechanical contractor will also determine what is needed in terms of tools and supplies and source those through whichever supplier provides the best price.

Once the submittal is approved and the supplier has defined the scope of what that supplier will provide, an order is submitted to the factory for the equipment and delivery dates are established.

If items are backordered, the mechanical contractor may opt to wait for the item or may go with a different supplier.

ORDER CONFIRMATION

Shipping / DELIVERY

Once the submittal is approved and the supplier has defined the scope of what that supplier will provide, an order is submitted to the factory for the equipment and delivery dates are established.

The equipment is shipped to either the job site or the mechanical contractor.

The contractor facilitates installation and reaches out to the supplier to schedule startup.

Deliveries must be times and coordinated to ensure the mechanical contractor has the machinery and supplies they need at the job site when the equipment is delivered. It may also need to be timed so the equipment is installed at the right point in the project cadence.

The equipment is shipped to the mechanical contractor directly or to the job site; depending on their preference. Once there, it is inspected to make sure it's correct, complete, and that there are no immediate issues or defects.

A date is coordinated between the mechanical contractor and the supplier for the facilitation of startup. Some suppliers may require the completion of a prestartup checklist in advance of startup.

ORDER CONFIRMATION

SHIPPING / DELIVERY

The equipment is shipped to either the job site or the mechanical contractor.

Once the order is places, the mechanical contractor receives an order number and delivery expectations.

Deliveries are heavily coordinated, as the mechanical contractor needs to be sure they have the appropriate machinery to facilitate the installation on site when the equipment delivers. They also need to coordinate their workforce for the installation effort.

Sometimes items are shipped via FedEx or UPS, sometimes they are picked up locally, and sometimes they are delivered by a truck from the supplier or a courier type service.

The mechanical contractor inspects the items delivered to make sure they are defect-free and in good working order prior to installation. The mechanical contractor and service technicians then work to install the solution on-site.

COMMISSION & STARTUP

TROUBLESHOOTING

Once the equipment is installed and startup has been factilitated, troubleshooting is done as needed.

Once the equipment is at the job site, the mechanical contractor completes installation and gets the equipment ready for startup.

Post start-up, the mechanical contractor will usually test the equipment to show the owner it works. This is a step that is completed as part of the warranty process.

If an issue occurs, the mechanical contractor works with the supplier to resolve it. In some instances, the supplier requests the issuance of a purchase order before they will provide troubleshooting assistance.

COMMISSION & STARTUP

The contractor facilitates installation and reaches out to the supplier to schedule startup.

TROUBLESHOOTING

Once the equipment is installed and startup has been factilitated, troubleshooting is done as needed.

Issues during installation are usually addressed by the installation crew. After installation, if something should happen, a service technician is dispatched to conduct troubleshooting, identify the issue, and facilitate repairs or additional service.

If the service technician encounters a problem on-site that is outside their scope, they will communicate it back to the mechanical contractor and work together to resolve it. "

CUSTOMER JOURNEY - Mid/Light Commercial

	SELECT JOBS TO BID	BID ON JOB	PROVIDE SUBMITTALS	ORDER CONFIRMATION	SHIPPING / DELIVERY	COMMISSION & STARTUP	TROUBLESHOOTING
	DESIGN	PROJECT PROPOSAL	PROVIDE SUBMITTALS	ORDER CONFIRMATION	SHIPPING / DELIVERY	COMMISSION & STARTUP	TROUBLESHOOTING
ITAL	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer 	 Email Mobile Device Computer 	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knowledge Exchange
NE	PhoneMobile Text	PhoneMobile Text	PhoneMobile Text	PhoneMobile Text	PhoneMobile Text	PhoneMobile Text	PhoneMobile Text
JT	 Blueprints Design Documents Paperwork related to bidding or job opportunity 	 Blueprints Design Documents Paperwork related to bidding or job opportunity Product Catalogs & Manuals 	 Submittal Div. 23 Specifications Paperwork related to bidding or job opportunity Paperwork related to contract 	 Purchase Order / Invoice 	 Carrier & Transit documents Purchase Order / Invoice Permits & other site related materials 	 Blueprints Design Documents Service Materials & Manuals Product Information Purchase Information 	 Blueprints Design Documents Service Materials & Manuals Product Information Purchase Information
SICAL	 In-person Site Visit 				 In-Person site visit 	 In-Person site visit 	 In-Person site visit
	TAL NE	SELECT JOBS TO BID DESIGN TAL • Email • Mobile Device • Computer • Online Resources & Knowledge Exchange NE • Phone • Mobile Text INE • Blueprints • Design Documents • Paperwork related to bidding or job opportunity SICAL • In-person Site Visit	SELECT JOBS TO BID BID ON JOB BID ON JOB PROJECT PROPOSAL DESIGN PROJECT PROPOSAL TAL • Email • Mobile Device • Computer • Online Resources & Knowledge Exchange • Email • Mobile Device • Computer • Online Resources & Knowledge Exchange NE • Phone • Mobile Text • Phone • Mobile Text IT Bluoprints • Design Documents • Paperwork related to bidding or job opportunity • Product Catalogs & Manuals SICAL • In-person Site Visit	SELECT JOBS TO BID BID ON JOB PROVIDE SUBMITTALS DESIGN PROJECT PROPOSAL PROVIDE SUBMITTALS TAL • Email • Mobile Device • Computer • Online Aesources & Knowledge • Exchange • Email • Mobile Device • Computer • Online Resources & Knowledge • Exchange • Email • Mobile Device • Computer • Online Resources & Knowledge • Exchange NE • Phone • Mobile Text • Bhove • Mobile Text • Phone • Mobile Text I.T • Blueprints • Design Documents • Paperwork related to blocking or job ooportunity • Product Catalogs & Manuals • Submittal • Divizg Specifications • Paperwork related to contract SICAL • In-person Site Visit	SELECT JOBS TO BID BID ON JO3 PROV DE SUBMITALS ORDER CONFIRMATION DESIGN PROJECT PROPOSAL PROV DE SUBMITALS ORDER CONFIRMATION IA • Final • Mobile Dovice • Computer • Contine Resources & Knowledge • Exchange • Final • Mobile Dovice • Computer • Contine Resources & Knowledge • Exchange • Final • Mobile Dovice • Computer • Contine Resources & Knowledge • Exchange • Final • Mobile Dovice • Computer • Contine Resources & Knowledge • Exchange • Final • Mobile Dovice • Computer • Contine Resources & Knowledge • Exchange • Final • Mobile Dovice • Computer • Contine Resources & Knowledge • Contine Resources • Con	SELECT JODS IO BLO B. D. ON LO3 FROV DE S. J.DMITALS ORDER CONTRMATION S. J. PRING / D. L.MLRY DESIGN PROJECT PROPOSAL PROV DE S. J.DMITALS ORDER CONTRMATION S. J. PRING / D. L.MLRY Al Lmail • Media Docise • Comparison • Compa	SFLECTUDES JUD ON JOB PROV DF SUBMITALS ORDER CONTIRMATION SEP PR d / DELVERY CONTINSION DESIGN ROLECT ROPOSA PROV DE SUBMITALS ONDER ODERIGN SEP PIN d / DELVERY SEP PIN d / DELVERY SEP PIN d / DELVERY Image: Sep Pin d / DESIGN ROLECT ROPOSA PROV DE SUBMITALS ONDER ODER ODER ODER ODER ODER ODER SEP PIN d / DELVERY SEP PIN d / DELVERY SEP PIN d / DELVERY Image: Sep Pin d / DESIGN ROLECT ROPOSA PROV DE SUBMITALS ONDER ODER ODER ODER ODER ODER ODER ODER DELVERY SEP PIN d / DELVERY SEP PIN d / DELVERY SEP PIN d / DELVERY Image: Sep Pin d / DESIGN ROLECT ROPOSA PROV DE SUBMITALS ONDER ODER ODER ODER ODER ODER ODER ODER DESIGN SEP PIN d / DESIGN SEP PIN d / DESIGN SEP PIN d / DESIGN SEP PIN d / DESIGN ODER ODER ODER SEP PIN d / DESIGN SEP PIN d / DESIGN SEP PIN d / DESIGN SEP PIN d / DESIGN ODER SEP PIN d / DESIGN SEP PIN d /

CUSTOMER CHALLENGES & PAIN POINTS - Mid/Light Commercial

COMMUNICATION

- Too much communication required to determine product availabiility
- Slow response times on emails and phone calls
- Excessive telephone hold times.
- Delayed order confirmations

ORDER PROCESSING

- Siloed or regional systems making it difficult to tie together accurate inventory
- Pricing inaccuracies
- Orders that are unexpectedly placed on hold at factory/distributor level.
- Sourcing equipment from multiple locations to meet customer urgency

ORDER FULLFILLMENT

- Changing leadtimes
- Supply chain issues delaying deliveries
- Backordered product and lengthy leadtimes create planning issues.

RMA & WARRANTY

- Cumbersome warranty processes
- Need to re-purchase defective/damaged items ahead of return
- Re-stocking and carrier fees on items returned due to supplier error, defect, or damage

CUSTOMER JOURNEY - Residential

JOL STA	RNEY GE	ASSESSMENT	SOLUTION PROPOSAL	QUOTE FROM OEM	ORDER PLACEMENT & CONFIRMATION	Shipping &/or Pickup	INSTALLATION	TROUBLESHOOTING
OVE	RVIEW	The mechanical contractor assesses the residential site and develops a proposal that will fulfill its needs.	The mechanical contractor determines the equipment and quantities required to complete a job. The mechanical contractor then works a supplier to establish pricing and place their order. In some instances, this may be done directly via e-commerce.	The supplier assembles the bundle according to the mechanical contractor's specifications and provides a quote.	Once the quote is agreed upon and the supplier has defined the scope of what will be provided, the necessary parts and equipment to complete the project are ordered.	The equipment is shipped to either the job site or the mechanical contractor. In some instances, items may be picked up in person.	The contractor installs the equipment on site and ensures everything is running smoothly.	Once the equipment is installed, troubleshooting is done as needed.
CUS	TOMER IVITY	The mechanical contractor works with the homeowner or a residential building company to determine what the needs of the site are and develop a plan to deliver. In many instances, these are jobs the mechanical contractor receives from either individuals they have done business with in the past, or individuals who have learned of the mechanical contractor by reputation.	The mechanical contractor reaches out to the OEM with a list of items needed to complete the job and works with them to determine pricing and timing. In some instances, this may be done by the mechanical contractor through a web portal or at a physical supplier or store.	For equipment, the mechanical contractor will engage their preferred supplier to get a quote for the job will be provided. In some instances, they may go to multiple OEMs to investigate opportunities to reduce cost, but many have specific brand loyalties. The mechanical contractor will also determine what is needed in terms of tools and supplies and source those through whichever supplier provides the best price.	Once the order is places, the mechanical contractor receives an order number and delivery expectations. If items are backordered, the mechanical contractor may opt to wait for the item or may go with a different supplier.	Deliveries are heavily coordinated, as most mechanical contractors in the residential market do not have a large enough facility to store items; requiring they be delivered to the site where they are to be installed. Sometimes items are shipped via FedEx or UPS, sometimes they are picked up locally, and sometimes they are delivered by a truck from the supplier or a courier type service.	The mechanical contractor inspects the items delivered to make sure they are defect-free and in good working order prior to installation. The mechanical contractor and service technicians then work to install the solution on-site.	 Issues during installation are usually addressed by the installation crew. After installation, if something should happen, a service technician is dispatched to conduct troubleshooting, identify the issue, and facilitate repairs or additional service. If the service technician encounters a problem on-site that is outside their scope, they will communicate it back to the mechanical contractor and work together to resolve it.
TOUCHPOINTS	DIGITAL	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knowledge Exchange 	 Email Mobile Device Computer Online Resources & Knowledge Exchange
	PHONE	PhoneMobile Text	PhoneMobile Text	PhoneMobile Text	PhoneMobile Text	PhoneMobile Text	PhoneMobile Text	PhoneMobile Text
	PRINT	 Blueprints Design Documents Service Materials & Manuals Product Catalogs & Manuals 	 Blueprints Design Documents Service Materials & Manuals Product Catalogs & Manuals 	 Design Documents Service Materials & Manuals Product Catalogs & Manuals 	 Purchase Order / Invoice Order Confirmation Receipt (for retail purchases) 	 Carrier & Transit documents Purchase Order / Invoice Permits & other site related materials 	 Blueprints Design Documents Service Materials & Manuals Product Information Purchase Information 	 Blueprints Design Documents Service Materials & Manuals Product Information Purchase Information
	PHYSICAL	 In-person visit to residential site 	In-person visit to residential site	In-person visit to supplier retail	In-person visit to supplier retail	In-person visit to supplier retail	In-person visit to residential site	In-person visit to residential site

CUSTOMER CHALLENGES & PAIN POINTS - Residential

COMMUNICATION

- Too much communication required to determine product availabiility
- Slow response times on emails and phone calls
- Excessive telephone hold times.
- Delayed order confirmations

ORDER PROCESSING

- Siloed or regional systems making it difficult to tie together accurate inventory
- Pricing inaccuracies
- Products that are not yet in the ordering system
- Order duplication issues

ORDER FULLFILLMENT

- Inability to pre-order equipment due to limited storage facilities
- Changing leadtimes
- Backordered product and lengthy leadtimes create planning issues.
- Carrier miscommunications
- Orders that are unexpectedly placed on hold at factory/distributor level.

RMA & WARRANTY

- Cumbersome warranty processes
- Need to re-purchase defective/damaged items ahead of return
- Re-stocking and carrier fees on items returned due to supplier error, defect, or damage
- Contact from collections regarding items returned



This research sought to gain cusomter insight relative to the following key questions toward informing the development of a larger sample customer survey:

- these purchases (in person, e-commerce, phone, etc.)?
- 2 influences their decision regarding supply channels?
- 3 influence them to change supply channels?
- 4 Do mechanical contractors prefer OEM/proprietary equipment and parts versus generic or universal?
- 5 What do Mechanical contractors prefer with respect to one-stop shopping and support? Why?
- 6

What are Mechanical contractor expectations with respect to service level and response time from their chosen manufacturers and/or supply channels?

Where are mechanical contractors purchasing equipment, parts, and supplies? And how are they completing

What influences their decision regarding which equipment manufacturers they opt to do business with? What

What would influence a mechanical contractor to change from one manufacturer to another? What would

Where are mechanical contractors purchasing equipment, parts, and supplies? And how are they completing these purchases (in person, e-commerce, phone, etc.)?

FINDINGS

- and/or supplies are needed.
- potential for order errors that might occur when relaying info by phone.
- work directly with someone and experience a faster response time.

QUOTE

"If it's a small or single-part order, working with someone over the phone is a lot easier. But if it's a multi-part order and it's a little complex, that's something you don't want to phone in. You know, you want documentation and backup that everything was entered correctly and selected properly. So yeah, for those we go to the website first."

Contractors prefer to place smaller orders via phone when a limited number of equipment, parts,

For larger or more complex orders, contractors prefer to place orders via e-commerce. This reduces

The contractors we spoke with prefer to use factory direct or indirect channels to procure JCI parts over working with parts centers or at the manufacturer level. This is largely because they are able to

FINDINGS

QUOTES

- they have specific brand loyalties.
- products can be delivered.
 - been installing York for 30 yea

What influences their decision regarding which equipment manufacturers they opt to do business with? What influences their decision regarding supply channels?

A mechanical contractor may approach multiple OEMs for competing quotes and/or pricing, but

For equipment and parts, the mechanical contractor will engage their preferred supplier for a quote. This is also because they generally have a contact through that supplier who can provide direct assistance if an issue is encountered or they need to leverage technical expertise.

Ancillary supplies are generally sourced according to who offers the best price and how quickly the

"It would be great if York could offer everything in one place. Places like Johnstone offer everything in one place, but they don't carry York... which is what we install. The owner has

FINDINGS

QUOTES

- to mechanical contractors than a competetive price or local availability.
- critical and/or common equipment and parts in stock.

What would influence a mechanical contractor to change from one manufacturer to another? What would influence them to change supply channels?

Availability of parts, ease of doing business, and responsive support channels seems more important

Several mechanical contractors indicated a strong preference for suppliers and channels that keep

The contractors we spoke with prefer a "white glove" business approach where they are empowered to work directly with a specific person when issues arrive. Quick response times are crucial.

generic or universal?

FINDINGS

QUOTES

- generic.
- needed influences customer buying decisions.

Do mechanical contractors prefer OEM/proprietary equipment and parts versus

Mechanical contractors and their customers prefer OEM/proprietary equipment and parts versus

In many instances, as long pricing is not over-inflated, mechanical contractors and their customers are willing to pay a price premium to get the exact equipment or parts they prefer.

For ancillary supplies and tools, competetive pricing and the ability to get the items when they

support? Why?

FINDINGS

QUOTES

- projects.

It is preferable to contactors to get most of the items needed to complete a job from a single location as this allows them to better accommodate the needs of their customers and coordinate

Some contractors feel that the technical expertise and general product knowledge of suppliers carrying a broad product line suffers; which leads to order errors downstream.

Contractors prefer to approach a single support channel for any technical or product questions. They dislike channels where they are passed around or get a different person each time.

What are Mechanical contractor expectations with respect to service level and response time from their chosen manufacturers and/or supply channels?

FINDINGS

QUOTES

- email, or text when they require sales or post sales support.
- response.

Customers prefer to work with a specific person or team at the supplier or channel level; and often rely on that person for post sales support, technical expertise, and problem resolution.

Customers expect same-day responsiveness and prefer to engage someone directly by phone,

Customers prefer self-service options that allow them to obtain product, order, delivery, and other information autonomously and without having to place a phone call or send an email that requires a

Pain Points

PAIN POINTS

When speaking with mechanical contractors regarding pain points encountered during their purchasing journeys, the following themes emerged around issues encountered when doing business with Johnson Controls:

COMMUNICATION

- Order information is not automated; necessitating extraneous phone calls and emails.
- Lack of communication when order processing or delivery timeframes change.
- Slow or no response to telephone and email inquiries.

QUOTE:

"It's almost like it's pushing everything out onto the customer. The communication, the follow ups, and everything else the customer has to fight to get what they need and that honestly is our experience when it goes wrong. About 80% of the time it goes right, but when it goes wrong... it takes a hell of a lot of back and forth and waiting to fix it."

Back and forth communication drives up fulfillment timeframes and makes scheduling work difficult.

ORDER PLACEMENT

- Parts catalogs and inventory may be inaccurate or outdated.
- Common and/or critical parts that are consistently out of stock.
- Difficulty navigating and features that do not work consistently when ordering from e-commerce platforms.
- Duplication of orders placed using Navigator.

"So it'll duplicate the order and then they take, you know, six months to get me an RMA to return it. In the meantime I have to pay the invoice and just eat that money and that's getting very frustrating."

QUOTES:

"It's easier for me to just call the Baltimore parts center and get somebody on the phone and get the part ordered. A lot of times you'll go to order the part through navigator and it'll say it'll just tell you to call the parts center. There's parts that are no longer available, or there's no pricing for it."

ORDER FULFILLMENT

- Inaccurate leadtimes and unexpected order delays.
- reimbursement.
- Picking errors, and inaccurate or incomplete kits.

"If I order something in the morning, I go back that afternoon to check if it's been released, or if they put it on hold. Because nobody will tell you, you won't get anything telling you."

QUOTES:

"Everybody knows the MetLife building in New York. You know where the chillers are? Right under the helipad. So if you're doing major construction, you open up a hole and put a 10 million dollar derrick on the roof, and then someone tells you it's going to be another 16 weeks for equipment? That doesn't bode well, you know? That's millions of dollars at stake."

Order changes or orders that are unexpectedly placed on a hold without proactive communication

Slow recovery time when items are lost or damaged in transit, including the need to re-order ahead of

RMA PROCESSING

- Cumersome warranty and RMA processes requiring additional escalation
- coverage or return
- Re-stocking and carrier fees on items returned due to supplier error, defect, or damage
- Slow RMA/Warranty processing causes customers to be contacted by collections

"Then I have to get the RMA to cancel out the invoice, and then the collections people don't know about that. So in the meantime I have to pay the invoice and just eat that money and that's getting very frustrating."

QUOTES:

"We have to wait forever for an RMA to return a bad part or the wrong part; and the whole time we're sitting on that cost. And they'll finally send our credit but hit me with a restock fee and they don't credit the shipping and handling... and I have to go back and fight them on that..."

Need to re-purchase defective/damaged items and incur out of pocket expense despite warranty

SLIDE LIST

- 4. Considerations based on data analysis (relate to key questions)
- 5. Recommendations for additional research
- 6. Add executive summary at start