

Maturity Models as a Diagnostic and Resource Mapping Tool for Food Hubs

Regan Hale, Jacob Rutz, Neal Rosenberger



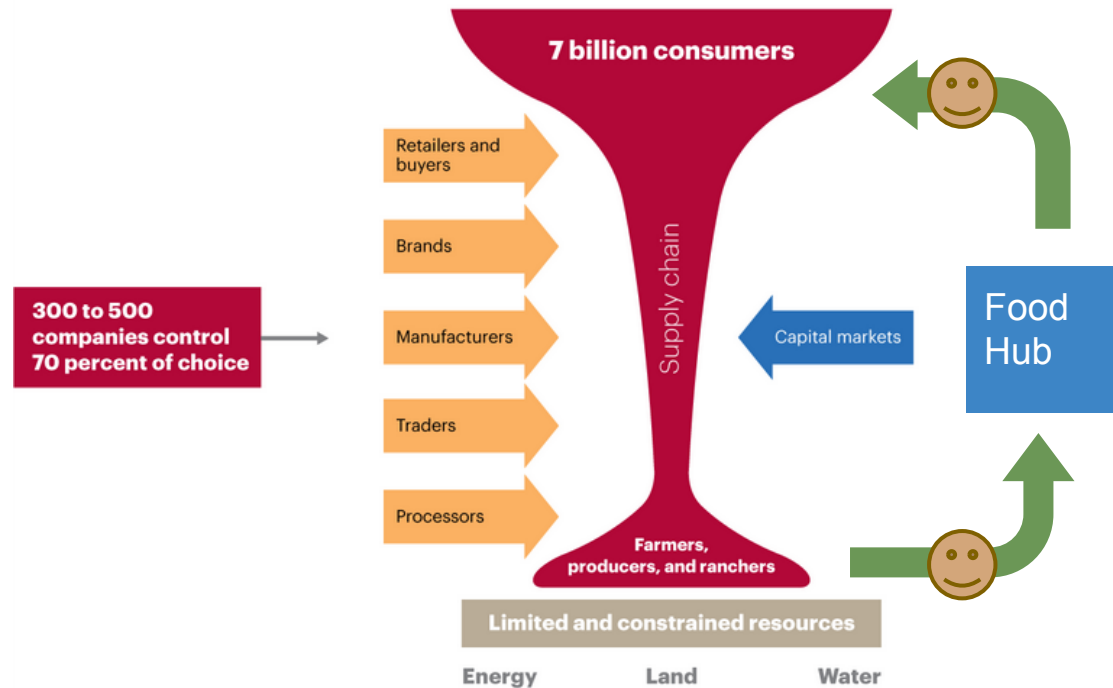
NC GROWING TOGETHER

Connecting Local Foods
to Mainstream Markets

Overview

- Background
- Scope
- Methodology
- Results
- Conclusions
- Future Research
- Acknowledgements

Food Hubs, Defined



Project Scope

- **Identify**, with advisement from successful operators, consultants, investors, and others, Food Hub **critical control points** and operational **success and challenge trends**.
- **Use** these observations to assess where the **needs for technical assistance** in Food Hub operations lie.
- **Synthesize** these observations through the creation of a chronological chart tool outlining trends in Food Hub operations.

Methodology

- Reviewed existing literature
 - Government publications
 - Community of practice surveys
 - University sponsored research
- Interviewed Food Hub professionals and managers in NC and across the country
- Synthesized this information into a maturity model for use as an assessment and resource mapping tool

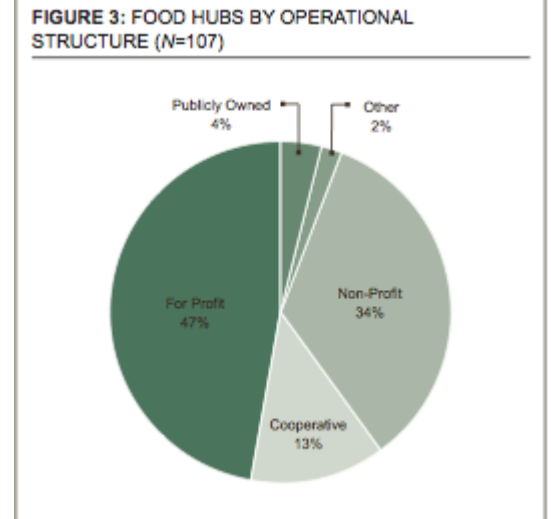
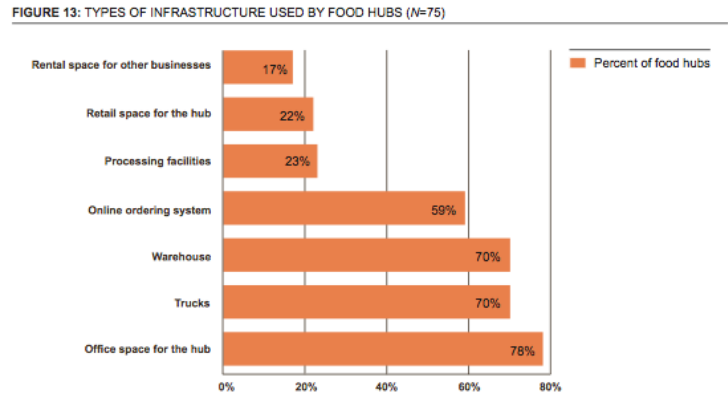
Maturity Model Background

Maturity model is a framework that is used as a benchmark for comparison when looking at an organization's processes.

- Originated at Software Engineering Institute (SEI) at Carnegie Mellon University funded by the Department of Defense for the use by the Air Force.
- Focused on identifying “weaknesses” and “strengths” of companies based on different factors such as: project management, project planning, peer reviews, training, and others

Challenges

- Applying traditional literature
- Diversity among Food Hubs
- Contacting Food Hubs



Results

- The Maturity Model
 - Trends
- Interview Trends
- Future Research/Development needs

Maturity Model

	START-UP		⇒	DEVELOPED		⇒	MATURE	
Key Issue	Business Characteristics	Food Hub Evidence	Transition Points	Business Characteristics	Food Hub Evidence	Transition	Business Characteristics	Food Hub Evidence
Internal functions	<ul style="list-style-type: none"> - Process changes difficult to implement - No documentation of performance history (failure/success) 	<ul style="list-style-type: none"> - Food Hub unable to adapt to market demands - No internal feedback mechanisms among employees, board, staff - Little/no strategic planning 	<ul style="list-style-type: none"> - Development of standard terminology about organizational processes and products - Development of process efficacy metrics begun 	<ul style="list-style-type: none"> - Unified process of documentation - Impact of future process changes evaluated before implementation; 	<ul style="list-style-type: none"> - Process language literacy among personnel - Documentation across supply chain 	<ul style="list-style-type: none"> - Process metrics established 	<ul style="list-style-type: none"> - Processes are adaptable based on metrics 	<ul style="list-style-type: none"> - Intra-business processes flexible and clearly documented - Food Hub is able to change strategic partners, producers and customers according to aggregated information
Distribution/Pack and Grade/Transporta	<ul style="list-style-type: none"> - Little/no standardized packing of product - Receiving process not uniform 	<ul style="list-style-type: none"> - Unreliable means of receiving or distributing product - Little/no form of regular transportation system - Frequent product returns, quality complaints - LTL freight is the rule, not the exception 	<ul style="list-style-type: none"> - Risk defined and means of equitable distribution across SC developing - Risk differentiated for packing/grading and transportation 	<ul style="list-style-type: none"> - Mathematical modules combined with customer data begin to guide distribution planning - Processes are measured and controlled 	<ul style="list-style-type: none"> - Transportation roles defined - Route optimization - Distribution activities well documented - Packing and grading standardized 	<ul style="list-style-type: none"> - IT system integration 	<ul style="list-style-type: none"> - IT systems guide optimization - Customer's and Supplier's plans incorporated in strategic development 	<ul style="list-style-type: none"> - Cost of transportation effectively distributed across supply chain - Food Hub has ideal transportation situation (either contracted or in house) including backhaul, freight services, LTL minimization, etc.; Farmer's and customer's future development taken into account
Sourcing	<ul style="list-style-type: none"> - Little/no documentation across supply chain - Have not identified strategic producers (No strategy in producer selection?) 	<ul style="list-style-type: none"> - Few anchor farmers, small diversity of farm sizes and product - Little/no retention of farmer identity with product 	<ul style="list-style-type: none"> - Screening process implemented for producer acquisition (scorecard?) 	<ul style="list-style-type: none"> - Strategic producers identified and prioritized - Diverse, yet manageable, sourcing base pursued 	<ul style="list-style-type: none"> - Food Hub has a diverse base of farmers whom guarantee the basis of financial viability - Diversity of farm types explored and capitalized on (ex. utilizing both conventional and organic producers) - Farmer identity retained throughout SC 	<ul style="list-style-type: none"> - Development of producer "score card" 	<ul style="list-style-type: none"> - Producer "score card" integrated into supplier acquisition process - Supply of prospective suppliers exceeds demand - Positive and active relationships with suppliers maintained 	<ul style="list-style-type: none"> - Keystone producer's future developments strategized with Food Hub; Metrics for producer viability guide new producer partnerships - Farmer identity extolled, creative story telling and customer interaction implemented

Maturity Model



Maturity Model - Start Up

Key Issue	SET-UP		DEVELOPED	MID	MATURE			
	Business Characteristic	Food Hub Evidence			Business Characteristic	Food Hub Evidence	Transition	Business Characteristic
Internal Function	<ul style="list-style-type: none"> - Food HUB unable to adjust to market changes - No internal feedback mechanisms among employees, suppliers, and customers - Little/no strategic planning - Unreliable means of receiving or distributing product 	<ul style="list-style-type: none"> - Food HUB unable to adjust to market changes - No internal feedback mechanisms among employees, suppliers, and customers - Little/no strategic planning - Unreliable means of receiving or distributing product 	<ul style="list-style-type: none"> - Unreliable process of documentation - Impact of sunk process changes evaluated before implementation 	<ul style="list-style-type: none"> - Process language literacy among personnel - Documentation across supply chain 	<ul style="list-style-type: none"> - Process metrics established 	<ul style="list-style-type: none"> - Processes are adaptable based on metrics 	<ul style="list-style-type: none"> - In-business processes flexible and clearly documented 	<ul style="list-style-type: none"> - Food HUB is able to change strategy, partners, producers, and customers according to aggregated information
Logistics/Supply Chain/Transport	<ul style="list-style-type: none"> - No standardized form of product - Frequent product return - Quality complaints - LT, freight is the rule not the exception 	<ul style="list-style-type: none"> - No standardized form of product - Frequent product return - Quality complaints - LT, freight is the rule not the exception 	<ul style="list-style-type: none"> - Risk defined and risk mitigation system - Mechanical modules combined with customer feedback to guide distribution planning - Risk minimized for high-grading and automation 	<ul style="list-style-type: none"> - Risk optimization defined - Distribution activities well documented - IT system integration 	<ul style="list-style-type: none"> - IT systems quite sophisticated - Customer and incorporated in strategic development 	<ul style="list-style-type: none"> - Cost of transportation effectively distributed across supply chain - Food HUB has clear transportation allocation (either contracted or in-house) including backhaul, freight, weight, and other factors 	<ul style="list-style-type: none"> - Customer and incorporated in strategic development 	<ul style="list-style-type: none"> - Cost of transportation effectively distributed across supply chain - Food HUB has clear transportation allocation (either contracted or in-house) including backhaul, freight, weight, and other factors - Customer and incorporated in strategic development
Sourcing	<ul style="list-style-type: none"> - Incomplete documentation across supply chain - Not a clear farmer, small diversity of farm types and product - Not identified large producers - Little/no selection of lower quality with product 	<ul style="list-style-type: none"> - Incomplete documentation across supply chain - Not a clear farmer, small diversity of farm types and product - Not identified large producers - Little/no selection of lower quality with product 	<ul style="list-style-type: none"> - Sourcing process streamlined for social accreditation - Diversity of farm types guaranteed the base of financial viability - Farmer identity retained throughout SC 	<ul style="list-style-type: none"> - Sourcing process streamlined for social accreditation - Diversity of farm types guaranteed the base of financial viability - Farmer identity retained throughout SC 	<ul style="list-style-type: none"> - Producer "score card" integrated into supplier selection process - Study of prospective suppliers exceeds "normal" - Positive and active relationships with suppliers maintained 	<ul style="list-style-type: none"> - Producer "score card" integrated into supplier selection process - Study of prospective suppliers exceeds "normal" - Positive and active relationships with suppliers maintained 	<ul style="list-style-type: none"> - Keynote producer's future development strategies are Food HUB, Metrics for producer viability guide new producer partnerships - Farmer identity retained, creative entry strategy and customer interaction implemented 	<ul style="list-style-type: none"> - Keynote producer's future development strategies are Food HUB, Metrics for producer viability guide new producer partnerships - Farmer identity retained, creative entry strategy and customer interaction implemented

- Business Characteristic

- Product and procurement expectations have not been agreed, understood or documented

- Food Hub Evidence

- Relationship with farmer exists, but no knowledge of needs from Food Hub or farmer are communicated

Maturity Model

	STARTUP			DEVELOPED			MATURE		
Key Issue	Business Characteristics	Food Hub Evidence	Transition Points	Business Characteristics	Food Hub Evidence	Transition	Business Characteristics	Food Hub Evidence	
Internal Functions	- Process changes difficult to implement - No documentation of performance history (sales/revenue)	- Food Hubs unable to react to market demands - No internal feedback mechanisms among employees, board, staff - Little/no strategic planning	- Development of shared temporary food organization processes and goals - Impact of future process changes evaluated before implementation	- Process language hierarchy among personnel - Documentation across supply chain	- Process metrics established	- Processes are adaptive based on metrics	- Intra-business processes flexible and clearly documented	- Food Hubs are able to change strategic partners, producers and customers according to aggregated information	
	- Little/no standardized receiving process not uniform	- Unreliable means of receiving or delivering product - Little/no form of rapid transportation system - Frequent product recall quality complaints - LT, flight is the rule not the exception	- Risk defined and plans of escalable distribution across receiving - Risk mitigation strategies being regularly implemented	- Mathematical models, protocols with customer tags begin to guide customer planning - Packing and grading processes are measured or controlled	- Transportation rates defined - Route optimization documented - Distribution activities well documented - IT system integration	- Cost of transportation effectively distributed across supply chain - IT systems quite sophisticated - Customer and customer's share incorporated in strategic development	- Cost of transportation effectively distributed across supply chain - IT systems quite sophisticated - Customer and customer's share incorporated in strategic development		
Distribution Plan and Grade/Transportation	- Little/no documentation across supply chain and product - Have not identified strategic producers and strategic producer selection?	- Few anchor farmers, small diversity of farm sizes and product - Little/no reputation of farmer identity with product	- Sourcing process planned for broader audience (connectivity)	- Strategic producers verified and prioritized - Diverse, yet manageable, sourcing base pursued	- Food Hubs has a diverse base of farmers whom guarantee the base of financial viability - Diversity of farm types verified and qualified on (ex. utilizing both conventional and organic producers) - Farmer identity retained throughout SC	- Producer "score card" integrated into supplier selection process - Study of retrospective suppliers exceeds demand	- Producer "score card" integrated into supplier selection process - Study of retrospective suppliers exceeds demand	- Keystone producer's future development integrated with Food Hubs. Metrics for producer viability guide new producer performance	
Sourcing								- Farmer identity retained, positive story telling and customer interaction implemented	

- Transition Point
 - Developed metrics inform planning and sales simultaneously

Maturity Model



Why do we need metrics?



What you Measure You Do!

Key Issue	START-UP	Food Hub Evidence	Action Points	EMERGING	Food Hub Evidence	Transition	MATURE	Food Hub Evidence
Internal Function	- Process changes difficult to implement - No documentation of performance history (cost/business)	- Food Hub unable to collect to market demands - No internal feedback mechanisms among employees, board, staff - Little/no strategic planning - Unreliable means of shipping or distributing product	- Measurement of least common denominator of organizational issues and goals - Measurement of future process efficiency before implementation	- Red process of reaction - Process language limited among personnel - Documentation across supply chain	- Process metrics established	- Processes are adaptable based on metrics	- Involuntary processes flexible and clearly documented	
	- Little/no standardized packing of product - No unique process not uniform	- Little/no form of unique transportation system - Frequent product return quality complaints - LT, weight is the rule, not the exception	- A defined and % of available business areas, SC mapping - A process used for integrating and reporting	- Financial involves meet with customer begin to guide financial planning - Packing and grading standardized	- Transportation costs defined - Route optimization - Distribution activities well documented - IT system integration	- Cost of transportation effectively distributed across supply chain - Food Hub has used transportation routes including backhaul, freight services, LT, innovation, etc. - Customer and Supplier data incorporated in strategic development	- Cost of transportation effectively distributed across supply chain - Food Hub has used transportation routes including backhaul, freight services, LT, innovation, etc. - Customer and Supplier data incorporated in strategic development	
Distribution/Pack and Grade/Transportation	- Little/no documentation across supply chain - Has not identified strategic priorities (the strategy or product selection)	- Few anchor farmers, small diversity of farm sizes and product - Little/no retention of farmer identity with product	- Strategic process defined for "our" acquisition research	- Food Hub has a diverse base of farms which guarantees the basis of financial viability - Diversity of farm types equipped and capitalized on low "striving" (non-conventional and organic products) - Some equity retained throughout SC	- Producer "looks east" integrated into supplier acquisition process - Supply of products exceeds customer demand - Development of seasonal "look east"	- Keystone producer's future developments integrated with Food Hub, metrics for producer viability guide the producer partnership - Farmer identity, creative story telling and customer interaction implemented		
	Sourcing							

Maturity Model - Developed

Key Issue	STARTUP		GROWING		MATURE		
	Business Characteristics	Food Hub Evidence	Transition Points	Business Characteristics	Food Hub Evidence	Business Characteristics	Food Hub Evidence
Internal functions	<ul style="list-style-type: none"> - Process changes difficult to implement - No internal feedback mechanisms among employees, board, staff - No documentation of performance history (growth/business) - Little/no strategic planning - Unreliable means of shipping or distributing product 	<ul style="list-style-type: none"> - Food Hub unable to adjust to market demands - No internal feedback mechanisms among employees, board, staff - No documentation of performance history (growth/business) - Little/no strategic planning - Unreliable means of shipping or distributing product 	<ul style="list-style-type: none"> - Development of business strategy about organizational processes and product - Development of process efficiency metrics sought 	<ul style="list-style-type: none"> - Defined process of selection - List of future products are evaluated before selection - Process through time among personnel - Documentation across supply chain 	<ul style="list-style-type: none"> - Process through time among personnel - Documentation across supply chain - Process metrics identified 	<ul style="list-style-type: none"> - Processes are adaptable based on metrics 	<ul style="list-style-type: none"> - Involuntary processes flexible and clearly documented - Food Hub is able to change strategic partners, producers and customers according to aggregated information
Distribution/Pack and Grade/Transportation	<ul style="list-style-type: none"> - Limited standardized packing of product - Packing process not uniform 	<ul style="list-style-type: none"> - Limited form of regular transportation system - Frequent product returns, quality concerns - Little weight is the rule, not the exception 	<ul style="list-style-type: none"> - Risk defined and means of suitable distribution across SC (warehouse) - High effectiveness for packaging/grading and transportation 	<ul style="list-style-type: none"> - Strategic modules met with customer sign to guide time planning - Packing and grading process are measured against 	<ul style="list-style-type: none"> - Transportation costs defined - Route optimization - Distribution activities well documented - Packing and grading standardized 	<ul style="list-style-type: none"> - IT systems guide warehouse - Customers and Supplier's share incorporated in strategic development 	<ul style="list-style-type: none"> - Cost of transportation effectively distributed across supply chain - Food Hub has used transportation routes other than owned or leased (including bar/haul, freight services, 1/2 refrigeration, etc.) - Farmer and customer's future development taken into account
Sourcing	<ul style="list-style-type: none"> - Little/no documentation across supply chain (size and product) - No formalized strategic practices (the identity of producer selection) 	<ul style="list-style-type: none"> - Few anchor farmers, small diversity of farm sizes and product - Little/no selection of farmer identity with product 	<ul style="list-style-type: none"> - Screening process implemented for producer selection (economic) 	<ul style="list-style-type: none"> - Diverse producers and products (veg, oil, nutmeg, etc. not measured, to take purchase) 	<ul style="list-style-type: none"> - Food Hub has a diverse base of farms which guarantee the basis of financial viability - Diversity of farm types (seasonal and specialized (ex. citrus, corn, producer selection and organic products)) - Some specialty measured throughout SC 	<ul style="list-style-type: none"> - Producer "locks early" integrated into supplier selection process - Supply of products exceeds suppliers excess demand - Positive and active relationships with suppliers maintained 	<ul style="list-style-type: none"> - Keynote producer's future developments synchronized with Food Hub, terms for producer viability guide the producer partnership - Farmer identity explicit, creative story telling and customer interaction implemented

- Business Characteristics
 - Planning occurs in conjunction with metrics to measure adherence to plans
- Food Hub Evidence
 - Farmers understand market needs
 - Food Hubs measure farmer's commitment to these needs

Maturity Model

- Transition Point
 - Producer and Customer direct communication and trust fostered

	START-UP	SO	DEVELOPED	TIRE
Key Issue	Business Characteristics <ul style="list-style-type: none"> - Process changes difficult to implement - No internal feedback mechanisms among employees, board, staff - No documentation of performance history (cost/business) 	Transition Points <ul style="list-style-type: none"> - Development of explicit terminology about organizational processes and products - Development of process efficiency metrics sought 	Business Characteristics <ul style="list-style-type: none"> - Unified process of documentation - Impact of future process changes evaluated before implementation - Documentation across supply chain 	Food Hub Evidence <ul style="list-style-type: none"> - Process language (terms among personnel) - Documentation across supply chain
Internal Functions	Food Hub Evidence <ul style="list-style-type: none"> - Unreliable means of shipping or distributing product - Limited form of digital transportation system 	Risk <ul style="list-style-type: none"> - Risk: unclear and means of stability (business areas, SC involvement) 	Mathematical models <ul style="list-style-type: none"> - Combined with customer data begin to guide distribution planning 	Process areas identified <ul style="list-style-type: none"> - Navigation roles defined - Route optimization - Distribution activities well documented
Distribution/Pack and Grade/Transportation	Business Characteristics <ul style="list-style-type: none"> - Limited standardized packing of product - "Packaging process not uniform" 	Risk <ul style="list-style-type: none"> - Risk: weight is the rule, not the exception 	Logistics/transportation <ul style="list-style-type: none"> - Packaging and grading standardized - Processes are measured and compared 	System region <ul style="list-style-type: none"> - Food Hub has a diverse base of farms which guarantees the basis of financial viability - Diversity of farm types (seasonal and capitalized (ex. -straw corn concentrate and organic products))
Sourcing	Business Characteristics <ul style="list-style-type: none"> - Limited documentation across supply chain - Has not identified strategic producers (ie. identify or producer selection) 	Screening process implemented for producer selection (seasonal) <ul style="list-style-type: none"> - Few anchor farmers, small diversity of farm sizes and products - Limited selection of some (identify with product) 	Strategic producers identified and prioritized <ul style="list-style-type: none"> - Cheese, oil, mayonnaise, sourcing (bake outland) 	Some specificity retained throughout SC <ul style="list-style-type: none"> - Farmer identifies, creates, story telling and customer interaction implemented
				Future characteristics <ul style="list-style-type: none"> - Involuntary processes flexible and clearly documented - Food Hub is able to change strategic partners, producers and customers according to aggregated information - Cost of transportation effectively distributed across supply chain - Food Hub has used transportation models (including blockchain, freight services, 1% reimbursement, etc.) - Farmer and customer's future development taken into account - Keynote producer's future developments synchronized with Food Hub, metrics for producer viability guide the producer partnerships - Farmer identifies, creates, story telling and customer interaction implemented

Maturity Model

Key Issue	STARTUP	FOOD HUB EVIDENCE	SO	DEVELOPED	FOOD HUB EVIDENCE	REGION	FUTURE CHARACTERISTICS	FOOD HUB EVIDENCE
Internal Function	<ul style="list-style-type: none"> - Process changes difficult to implement - No internal feedback mechanisms among employees, board, staff - No documentation of performance history (cost/benefit) 	<ul style="list-style-type: none"> - Food Hub unable to adjust to market demands - No internal feedback mechanisms among employees, board, staff - Little/no strategic planning - Unreliable means of receiving or distributing product - Little/no form of regular transportation system 	<ul style="list-style-type: none"> - Development of explicit terminology about organizational processes and product - Development of process efficiency metrics sought 	<ul style="list-style-type: none"> - Unified process of documentation - Impact of future process changes evaluated before implementation 	<ul style="list-style-type: none"> - Process language (terms) among personnel - Documentation across supply chain 	Process areas identified	Increases are possible based on food	<ul style="list-style-type: none"> - Involuntary processes flexible and clearly documented
	<ul style="list-style-type: none"> - Little/no standardized packing of product - Packing process not uniform 	<ul style="list-style-type: none"> - Risk defined and means of stabilizing distribution areas, SC - Frequent product returns, quality complaints - Little/no attention paid to packaging and transportation 	<ul style="list-style-type: none"> - Mechanical involves combined with customer data begin to guide distribution planning - Processes are measured and compared 	<ul style="list-style-type: none"> - Transportation roles defined - Route optimization - Distribution activities well documented - Packing and grading standardized 	<ul style="list-style-type: none"> - Food Hub has a diverse base of farms which guarantees the basis of financial viability - Diversity of farm types (seasonal and capitalized like "straw" from conventional and organic producers) - Choice of regional sourcing (like purchased) 			<ul style="list-style-type: none"> - Food Hub has a diverse base of farms which guarantees the basis of financial viability - Diversity of farm types (seasonal and capitalized like "straw" from conventional and organic producers) - Choice of regional sourcing (like purchased)
<ul style="list-style-type: none"> - Little/no documentation across supply chain - Has not identified strategic priorities (to strategy or producer selection) 	<ul style="list-style-type: none"> - Few anchor farmers, small diversity of farm sizes and product - Little/no selection of former density with product 	<ul style="list-style-type: none"> - Screening process implemented for producer selection (seasonal) 	<ul style="list-style-type: none"> - Strategic producers identified and prioritized 	<ul style="list-style-type: none"> - Farm Hub has a diverse base of farms which guarantees the basis of financial viability - Diversity of farm types (seasonal and capitalized like "straw" from conventional and organic producers) - Choice of regional sourcing (like purchased) 	<ul style="list-style-type: none"> - Farm Hub has a diverse base of farms which guarantees the basis of financial viability - Diversity of farm types (seasonal and capitalized like "straw" from conventional and organic producers) - Choice of regional sourcing (like purchased) 	Development "local" focus on	Keynote producers' future developments (integrated with food hubs, metrics for producer viability guide the producer partnerships)	<ul style="list-style-type: none"> - Farmer identity established, creative story telling and customer interaction programmed
<ul style="list-style-type: none"> - Little/no documentation across supply chain - Has not identified strategic priorities (to strategy or producer selection) 	<ul style="list-style-type: none"> - Few anchor farmers, small diversity of farm sizes and product - Little/no selection of former density with product 	<ul style="list-style-type: none"> - Screening process implemented for producer selection (seasonal) 	<ul style="list-style-type: none"> - Strategic producers identified and prioritized 	<ul style="list-style-type: none"> - Farm Hub has a diverse base of farms which guarantees the basis of financial viability - Diversity of farm types (seasonal and capitalized like "straw" from conventional and organic producers) - Choice of regional sourcing (like purchased) 	<ul style="list-style-type: none"> - Farm Hub has a diverse base of farms which guarantees the basis of financial viability - Diversity of farm types (seasonal and capitalized like "straw" from conventional and organic producers) - Choice of regional sourcing (like purchased) 			Development "local" focus on



Regional Food Hubs: Linking producers to new markets

Know Your Farmer, Know Your Food (KYF2)
Regional Food Hub Subcommittee

Maturity Model - Mature

Key Issue	STARTUP	SO	DEVELOPED	SO	Key Characteristics	Food Hub Evidence	
Internal Functions	Business Characteristic - Process changes difficult to implement - No documentation of performance history (costs/business)	Food Hub Evidence - Food Hub unable to adjust to market demands - No internal feedback mechanisms among employees, board, staff - No documentation of performance history (costs/business) - Unreliable means of measuring or distributing product	Transition Points - Development of explicit terminology about organizational processes and product - Development of process efficacy metrics (input/output)	Business Characteristic - Unified process of documentation - Impact of future process changes evaluated before implementation	Transition - Process language (metrics) among personnel - Process metrics established	Food Hub Evidence - Processes are clearly documented - Food Hub is able to change strategic partners, producers and customers according to aggregated information	
	Operational/Part and Order/Transportation - Limited standardized packing of product - No tracking process not in place	- Limited form of digital transportation system - Frequent product returns, quality concerns - LTL freight is the rule, not the exception	- Risk defined and means of business (business areas, SC) reviewed - High effectiveness of packaging and transportation	- Mathematical models combined with customer data begin to guide distribution planning - Processes are measured and compared	- Route optimization - Distribution activities well documented - Full system integration	Key Characteristics - Cost of transportation effectively distributed across supply chain - Food Hub has clear transportation systems guide "flexion" - Flexible partner contracts or at least includes backhaul, freight, returns, LTL reimbursement, etc. - Partners and customer's future development seen into account	Food Hub Evidence - Cost of transportation effectively distributed across supply chain - Food Hub has clear transportation systems guide "flexion" - Flexible partner contracts or at least includes backhaul, freight, returns, LTL reimbursement, etc. - Partners and customer's future development seen into account
Sourcing	- Limited documentation across supply chain - Has not identified strategic producers (the strategy in producer selection)	- Few anchor farmers, small diversity of farm sizes and product - Limited selection of same identity with product	- Screening process implemented for producer selection (contract) - Strategic producers identified and promised (contract)	- Diversity of farm types explored and capitalized on (e.g., utilizing both conventional and organic producers) - Choice of strategic sourcing taken pursued	- Food Hub has a diverse base of farms which guarantees the basis of financial viability - Development of producer "look good"	Key Characteristics - Producer "look good" great into supplier and/or process - Diversity of producers explored and capitalized on (e.g., utilizing both conventional and organic producers) - Development of producer "look good"	Food Hub Evidence - Keynote producer's future developments shared with food hubs, metrics for producer viability guide the producer partnerships - Active and active brands with same maintained - Farmer identity, excited, creative story telling and customer interaction implemented

- Business Characteristic
 - Fully/mostly integrated with sales, operations and distribution
- Food Hub Evidence
 - Entire SC reactive to producer's present and future production
 - Established metrics guide producer evaluation and new producer partnerships

Maturity Model Trends

- Key Producers
- Unique Products
- Documentation

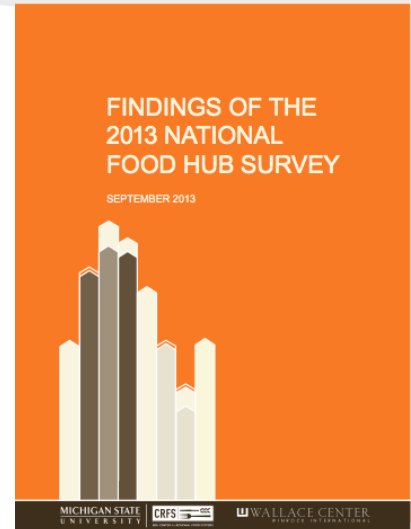


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Interview Trends

- Develop (quantitative) metrics
- Packing and Grading
- Collaborate or Die!
- Know thyself



Future Research Need

- Test the model for usefulness
 - Refine and Add
- Developing metrics



Thank You!

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Smithson Mills

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Adam Diamond & James Barham

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