30th Annual Emerging Issues Forum

INNOVATION RECONSTRUCTED

Raleigh Convention Center
February 9-10, 2015

SUMMARY REPORT: SECTOR FOCUS GROUPS

August through September 2014

Institute for Emerging Issues
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Innovation Reconstructed

How will our companies and communities compete in a future of accelerating *everything*?

SUMMARY REPORT FROM SECTOR FOCUS GROUPS

INTRODUCTION

Public and private organizations, and the individuals working within them, must innovate on shorter timelines and around bigger and more complex challenges. As new and increased global connections drive changes in all sectors and disrupt traditional business models, North Carolina's companies and communities will need new supports that fuel responsive innovation.

In recent months, the Institute for Emerging Issues (IEI) at NC State University convened focus groups to understand how companies and communities are responding to this changed innovation paradigm. This report presents findings from focus groups with leaders in seven key sectors: banking, agriculture, healthcare, technology, retail and tourism, higher education, and government. It sets out the perspectives of participants regarding how their sectors are likely to be reshaped and what supports they will need to succeed.

Over the next month, IEI will use themes drawn from these sector-based convenings to inform a second set of focus groups with local communities across North Carolina. Findings from these and the earlier sessions will then be provided to a special IEI-convened Working Group made up of diverse stakeholders and faculty fellows. The Working Group will advise IEI concerning the design of appropriately responsive sessions for our upcoming 30th Annual Emerging Issues Forum, entitled *Innovation Reconstructed*. The Forum is scheduled for February 9-10, 2015, at the Raleigh Convention Center.

SUMMARY REPORT

Participants in our seven sector focus groups made clear that new smart, connected products are causing profound changes in how value is created for customers, how companies compete, and the boundaries of competition itself. Mobile devices, cloud computing, business analytics, and social media have completely changed the way businesses operate. Technology today automates work processes, facilitates real time monitoring of data, and allows companies to understand their customers in ways they never thought possible. Additionally, the global connections enabled by these products have compromised traditional business models by overwhelming incremental approaches to innovation. Today's innovators operate in a fundamentally different world characterized by new networks and collaborative relationships. Being integrated into a diffuse network – even one made up of competitors - promotes access to new sources of information and enables companies to apply that knowledge and share risk.

When IEI asked focus group participants to think ahead thirty years, many balked at the notion. They noted, in general, that the rapid pace of technological change and evolving customer preferences make it difficult to think beyond a shorter time frame in many sectors. This was an especially salient point for the technology and banking sectors, which suggested horizons of five or so years; in other sectors such as healthcare, participants saw broad trends ten or more years out.

Whatever the timeframe, there was agreement across the groups that new, smart connected devices and the global flows they help produce are driving profound changes in their business models. IEI discerned four key areas of change:

- Customer-driven innovation;
- Collaborative innovation among organizations;
- Coordinated innovation between companies and higher education; and
- Connections between companies and geographic location.

Customer-Driven Innovation

Customer preferences are driving huge impacts in all sectors. Social media and new technologies provide companies with more information about their customers, allowing them to provide better products or new methods of delivery. Companies are finding that they cannot successfully innovate unless they invest in customer research and development and actively involve employees who represent their interface with regular customers.

In agriculture, evolving consumer opinion is reflected in the expectation of greater accountability and information regarding foods and related producer practices, such as whether food has been genetically modified or how animals are raised. When significant retailers, such as Walmart, make buying decisions that reflect these new consumer preferences, it triggers transformative change across the agricultural supply chain. Consumer leverage in the marketplace is the consolidated buying power of millions of customers who shop in its stores every week.

Similarly, healthcare providers will succeed in the marketplace if they can apply an understanding of consumers to the development of new business models. The industry has moved away from healthcare dictated by providers to one directed by the consumer—whether that is in-person, online, or on the phone—and increasingly through non-traditional settings, such as mobile devices and retail health clinics. The healthcare industry is expecting to see the rise of the 'consumer value' movement, in which consumers demand healthcare that is affordable and available. Further in the future, the sector expects to see the growth of personalized medicine, enabled by genomics and big data.

Even within sectors like education that function as supports for industry and commerce, customer preferences are changing business models. For example, higher education is also becoming more customized and informed by analytics, which provide educators with insight into student comprehension and learning outcomes. This student-centric approach provides a more personalized educational experience than the traditional "one-size-fits-all" method. It offers a model likely to include paths to degrees that allow for unique interdisciplinary studies that better align student experience and capability with changing workforce needs.

In banking, routine transactions, such as online checking, have mostly moved beyond the traditional branch banking service model, especially for the younger generation. Banks are investing heavily in technology that makes it easy for customers to conduct a wide range of banking activities on the go. However, for more complex financial decisions, such as buying an investment product or getting a business loan, customers still desire face-to-face interaction. Banks therefore cannot eliminate their brick-and-mortar infrastructure altogether. Instead, they must retool the business model so a smaller number of retail branch bankers understand the breadth of the product line for customer face-to-face interaction. These interdependent channels must be easy to navigate, provide a consistent customer experience, and integrate seamlessly.

As in banking, governments are confronting expanding citizen preferences that imply dual service delivery channels, a development that may add to employee workloads. For example, public employees will increasingly use email and social media to communicate with younger generations, but they must use mail and newspaper notification for other residents. A full transition to digital systems may never occur, as some percentage of the population will always prefer to talk to someone on the phone to resolve their issues.

Collaborative Innovation among Organizations

Organizations are pursuing innovation through collaborative relationships as a means to respond successfully to fast-moving changes in industry. Strategic alliances and joint ventures are important because of the complexity and risks in a global economy. In addition, few single organizations are big enough to cope with complex and diverse customer demands. Focus group participants gave great emphasis to the importance of alliances and networks to deliver customer value, and suggested that corporate success increasingly depends on being able to manage new collaborative networks.

Public and private organizations that work together in a spirit of experimentation will develop ideas that keep them at the forefront of the next wave of innovation. Combinations of resources, ideas, and technologies will often come from an exchange of knowledge with organizations previously viewed as competitors. This change from a "win-lose" mentality to a "win-win" mentality is a fundamental characteristic of new sector innovation. Organizations will need "safe spaces" to work with competitors so self-interest is channeled through collaborative processes that yield mutual advantage.

For example, in the healthcare sector, characterized by numerous providers and a great deal of fragmentation, collaboration is needed for transformation to occur at scale because no one organization drives the system or has a monopoly on consumers. With a short-term contractual arrangement between a care provider and private insurance company, there is insufficient time to innovate around consumers' healthcare needs. In this example, if payors and providers could come together while respecting antitrust considerations, multi-payor contracts could emerge that would greatly expand innovation opportunities.

In technology and agribusiness, cooperation among competitors is already pervasive. For example, agribusiness companies may collaborate on the application of big data to crop yields, but compete in other aspects of their businesses. Such cooperation is important to maintain or gain strategic advantage, and it has the added benefit of minimizing risk since no one firm assumes all the risk in the new venture.

In public organizations, we are already seeing more coordination. It often takes the form of regional agreements in government. In higher education, our focus group participants noted the increased numbers of articulation agreements among individual educational institutions. In addition, universities across the country are forming regional consortiums that allow individual campuses to share resources, play to different strengths, and spread risks.

Across several sectors, including agriculture, banking, and higher education, participants noted regulatory constraints to their innovation. They also noted that alternative delivery models which are not always subject to the same regulatory burdens have emerged as significant competitive factors.

Coordination Between Companies and Higher Education

Every focus group agreed that higher education is a primary driver of economic growth by producing an educated workforce and by generating new innovation through research. These activities attract businesses to North Carolina. However, the private sector focus groups were clear that, given the fast pace of change in market dynamics, they need even deeper and more responsive relationships with institutions of higher education. The world is in rapid flux and higher education must move with greater speed, consistent with the pace of cutting-edge business and global operations. The higher education focus group agreed that these relationships are critical, and acknowledged the need to respond to an evolving industry feedback loop, shifting workforce needs, and other realities of global competition.

Companies have a global orientation, and if support institutions lack this mindset, companies will look outside North Carolina for talent or research partnerships. For example, the North Carolina agribusiness industry reported that it looks less often to North Carolina's higher education institutions for ideas and solutions to urgent problems. Instead, many large companies have developed key research partnerships with each other. As another example, in some cases large banks look to California's deeper technology talent pool for highly-skilled technology workers. This is not to suggest that the companies in IEI's focus groups have stopped looking to higher education institutions in our state to solve pressing problems. For example, when the banking sector needed workers trained in cyber security, North Carolina community colleges and East Carolina University responded by adding related courses and training programs.

For workers, obtaining a university or community college degree remains an important market signal. Increasingly, however, employers want assurances that workers possess the skills their training implies. Focus group participants expect that the future will include more third-party verifications or industry certifications (e.g., the Auto Service Excellence certificate for auto repair and service). Companies may also construct their own assessments. Higher education institutions will continue to change course offerings to meet industry needs and to develop learning outcomes assessment and other mechanisms to validate educational outcomes. It is also true that these institutions will continue to provide the broad training on critical thinking and problem solving that companies find increasingly essential to innovation efforts.

Connection between Companies and Geographic Location

Many of the focus groups reflected on the changing nature of the connections that link companies to place. First, some companies regard their innovations as occurring in a world of "zero gravity," that is, they do not necessarily feel tied to their location in North Carolina or to any other locale. These companies made clear that in a global world, they could innovate wherever the right assets existed.

Second, perhaps because of the "zero gravity" notion, many participants reiterated the importance of strategically branding North Carolina's valuable assets in its communities. For example, the technology sector shared a desire for North Carolina to differentiate itself from economic competitors such as Boston and Silicon Valley. They suggested that North Carolina must play to its strengths – a world-class system of higher education, affordable cost of living, family-friendly communities, and job stability – when competing with heavyweights such as Google and Microsoft for highly-skilled technology workers. Importantly, they argued that any effort to maintain the brand identity as the state of "cheap land, cheap labor, and cheap energy" is limiting and outdated, and should be avoided. While this moniker may have worked in the past, North Carolina's key assets are now its systems of higher education and its skilled workforce.

Provided that North Carolina is branded correctly and marketed successfully, focus group participants were confident that innovation opportunities will abound. But, they cautioned branding incorrectly would disrupt the engine of innovation, making it harder for companies to compete in today's fast-paced environment.

Finally, it was clear that branding is equally important for individual communities. People who live and work in vibrant communities will form and incubate compelling ideas. For example, the City of Asheville markets the area's unique cultural and natural offerings as an alternative to the more urban settings of Raleigh and Charlotte. This branding has successfully promoted small and local businesses, which in turn promote each other to increase their mutual resilience in the face of economic and social disruptions.

The City of Charlotte has long been marketed as a banking industry hub, but banking executives noted that the city lost most of its capital markets activity to New York after 2008. A further challenge for Charlotte in national comparisons is that it serves as headquarters to just seven or eight Fortune 500 companies, as compared to 18 for a city like Minneapolis. Although Bank of America, for one key example, is headquartered in Charlotte, the city is not regarded as a significant metropolitan center at the national level.

As a component of this idea of branding the local community, it was clear that companies saw themselves as investors in the brand. Focus group participants agreed that there would increasingly be more business and government collaboration for the betterment of the community. Pointing out that declining resources mean that the government cannot solve every societal problem, company focus group representatives indicated a desire to bring their perspective to social problems. In the past, businesses may have expected the government to deal with these social issues while competitive pressures drove them to focus on opportunities closer to their core operations. Today, businesses realize that the need for collaboration includes positioning themselves to help solve the socioeconomic problems that hold their communities and its companies back.