

WISCONSIN DEPARTMENT OF PUBLIC
INSTRUCTION PATHWAYS PROJECT
FOCUS GROUPS (FUTURING PANELS)



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Project Overview

In May 2019, the Wisconsin Department of Public Instruction (DPI) partnered with MBA Research and Curriculum Center to convene three futuring panels with Wisconsin business executives.. Both for-profit and nonprofit sectors were represented.

The Wisconsin business executives provided their perspectives on:

- The trends shaping the workforce development needs in the Wisconsin business environment and some of the skill sets needed to address those trends
- The general business skills needed by all business professionals
- Skills needed specifically in the Business Management, Finance, and Marketing clusters
- Evaluation of ethical leadership traits and ethics scenarios in the workplace and in their industries
- Evaluation of core skills needed in Business Management, Finance, and Marketing clusters
- Credentials and certifications needed in business

The following Clusters and Pathways were represented by business executives participating in the panels:

Business Management Cluster

Pathways: Administrative Services, Business Information Management, General Management, Human Resources Management, Operations Management

Finance Cluster

Pathways: Accounting, Banking Services, Corporate Finance, Insurance, Securities and Investments

Marketing Cluster

Pathways: Marketing Communications, Marketing Management, Marketing Research, Professional Sales

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Participants

Futuring panel participants held positions at the following companies:

- ACS Group
- American Family Insurance
- American Heart Association
- American Lung Association
- Baker Tilly
- BMO Wealth Management
- BrandSafway
- Brookfield Pharmaceuticals
- CHEP
- Chula Vista Resort
- Citizens Bank
- Clearcover Insurance Company
- CLM Prescriptives
- Corporate Central Credit Union
- Destination Madison
- Educators Credit Union
- Energy Bank
- Engle Tyler & Associates
- FiddleSmart Marketing, LLC
- First Weber Realtors
- Gateway Technical College
- Greendale Schools
- HMS Holdings
- InitiativeOne
- Institute for Global Ethics
- Jay Olson Branding
- Johnson Health Tech North America
- Keith Herr Consulting
- Kohler Credit Union
- Lakeside Foods
- Lemberg
- Miller Public Adjusters
- Northern Industrial Sands, LLC
- ORBIS Corporation
- Packard Auto
- Park Bank
- Partnership Bank
- PM Peter Murphy Consulting
- Premier Financial Credit Union
- Pro AV Systems
- PWSSD Foundation
- State of Wisconsin Investment Board
- StayWell
- SurgeMKE
- Svinicki Association Management, Inc.
- The PeregrineMaven Group
- The Wilhelm Group
- Total Administrative Services Corporation (TASC)
- Tri City National Bank
- US Bank
- Willy Street Co-op
- Wisconsin Housing and Preservation Corporation
- WPS Health Solutions

Participants (cont'd)

Participant position titles include the following:

- Account Executive
- Business Development Manager
- CEO
- Chief Consultant
- Chief Financial Officer
- Chief Operating Officer
- Cofounder
- Communications Director
- Community Outreach Manager
- Dean, Workforce Operations
- Director
 - Accounting/Corporate Controller
 - Communications
 - Community Engagement
 - Human Resources
 - Marketing
 - Operations and Technology
- Executive Vice President
- Extended Service Manager
- Financial Advisor
- Founder
- General Manager
- Investment Administrative Assistant
- Logistics and Special Projects Coordinator
- Managing Director
- Office Operations Manager
- Owner
- President
- Real Estate Advisor
- Senior Analyst, Enterprise Risk Management
- Senior Proposal Writer
- Vice President
 - Brand and Communications
 - Business Advisory and Estate Planning
 - Commercial Banking
 - Controller
 - Marketing and Communications
 - Professional Development
 - Strategic Partnerships
 - Workforce Optimization

Views expressed during the panels were participants' own and not necessarily representative of their companies.

We would like to extend deep appreciation to:

- Tim Fandek and Dave Thomas with the Wisconsin Department of Public Instruction for making this collaborative effort possible.
- Robin Kroyer-Kubicek and Karin Smith for their collaboration on the Pathway portion of this project and their tireless note-taking abilities during the panels.
- Waukesha County Technical College who provided ideal meeting space for the groups.

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Top Trends

Panelists met in small groups and determined trends that are affecting business operations now, or in the future. Each cluster voted on their top three trends, which are indicated below. Most of the top trends were noted as a trend for each cluster, just not always in a top spot.

Top Trends in Wisconsin	Business Management	Finance	Marketing
<p>1. Shifting demographics—cultural and generational differences in the workplace, including both “front and back” operations</p> <p>Discussion points:</p> <ul style="list-style-type: none"> • Some companies are providing training in this area. Especially prevalent in hospitality and tourism arenas. • “Lawn-mower” parents were mentioned as a concern in this area (i.e., parents intervening in work related issues such as phone calls to bosses, inquiries about interviews, etc.) • Companies need to make sure their expectations around culture are “front and center.” • These factors affect employee engagement, which is critical to the success of companies. • Some companies are working to address non-binary gender status/identity. • Some companies are developing diversity and inclusion committees. <p>Needed skill sets:</p> <ul style="list-style-type: none"> • Multilingual • Cultural competency <ul style="list-style-type: none"> ○ Inclusion ○ Diversity • Multicultural understanding • Emotional intelligence • Communication skills/nonjudgmental <ul style="list-style-type: none"> ○ Public speaking • Research • Respect • Ability to help foster positive interactions and collaboration within offices and across varying offices 	<p>X</p>	<p>X</p>	<p>X</p>

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Top Trends in Wisconsin	Business Management	Finance	Marketing
<ul style="list-style-type: none"> • Ability to conduct and participate in virtual meetings • Sensitivity to time zone differences • Ability to understand cultural differences within the processes of supply chain management • Interpersonal skills • Ability to think independently but work collaboratively • Continued learning and professional development • Being able to “build and present” the slide deck— front vs. back • Ability to adapt to change 			
<p>2. Increased use of automation, Internet of Things (IOT), and the use of analytics in decision-making</p> <p>Discussion points:</p> <ul style="list-style-type: none"> • Tech roles are increasingly important in the business management process as individuals in those roles have to conceptualize solutions to business problems • Many jobs are moving from simple tasks to compiling, analyzing, and utilizing data very quickly for decision-making purposes • Increased granularity of customer buying patterns • Customer Relationship Management (CRM) software used to develop tailored content strategy • There are some concerns about the overuse of AI • Risk of data overload <p>Needed skill sets:</p> <ul style="list-style-type: none"> • Ability to understand what is behind the processes • Analytical-thinking skills guided by data • Coding language • Systems architecture • Hands-on and use of simulations • Ability to embrace and utilize agile processes • Ability to communicate with tech personnel about business requirements • Ability to manage technology vendors • Adaptability <ul style="list-style-type: none"> ○ New skills and change 	X	X	X

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Top Trends in Wisconsin	Business Management	Finance	Marketing
<ul style="list-style-type: none"> • Resiliency • Problem-solving process <ul style="list-style-type: none"> ○ Understanding and identifying problem ○ Lean process • Comfort with ambiguity • Understanding the underpinnings of technology • Math skills—Advanced • Ability to translate jargon • Skills with Excel • Mastery of business statistics and the ability to apply to real-world situations 			
<p>3. Risk management—greater awareness of legal implications of business and technical elements of higher court decisions and potential impact to businesses</p> <p>Discussion points:</p> <ul style="list-style-type: none"> • Non-legal employees are paying more attention to this aspect of doing business and asking how legal actions impact global business connections. • Many employees are showing greater awareness and understanding of the complexity and impact of legal issues (i.e., cybersecurity, immigration and migration, personal vs. private lives). • Important to understand ethical implications of compliance issues, and impact to systems beyond the “getting sued” aspect • Need for companies to be more socially responsible in terms of customer data • Compliance and legal/ethical decisions are being driven by business employee lawsuits. • Understanding impact of risk-averse environments • Need for well-defined policies to help mitigate risk • More companies diversifying products and services to reduce risk of exposure <p>Needed skill sets:</p> <ul style="list-style-type: none"> • Ability to understand impact of actions beyond risk of getting sued. • Ability to understand contractual language and obligations 	X	X	

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Top Trends in Wisconsin	Business Management	Finance	Marketing
<ul style="list-style-type: none"> • Awareness of cyber liability and protection of customer information • Understand and utilize social media applications appropriately • Detail orientation • Critical thinking 			
<p>4. New technology and the ability/desire to embrace the changes it brings</p> <p>Discussion points:</p> <ul style="list-style-type: none"> • Has an impact on employee moral • Difference in generational adaptation—digital natives vs. digital visitors • Some companies are not taking the time to educate older employees on mobile technology applications • May help to learn technology outside of work that can then be applied in the workplace for a more full-scale adaption • May need to use different modalities of technology between generations • Mobile devices need to be recognized as work tools—not just work distractions. • Reverse mentoring can be an important component to success. • Increased use of bots • Companies need different communication portals for different customers. • Gen Z is known for managing up to 8 screens at one time, juggling their attention back and forth between screens that need tending to. • Expectations of proficiency vary <p>Needed skill sets:</p> <ul style="list-style-type: none"> • Adept at Excel (intermediate and advanced skill level—beyond basic) <ul style="list-style-type: none"> ○ Data analysis ○ Formulas • Advanced database skills <ul style="list-style-type: none"> ○ Salesforce automation • Understanding business system • Data analysis • Cross training • Social media management and boundaries 	X		

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Top Trends in Wisconsin	Business Management	Finance	Marketing
<ul style="list-style-type: none"> Advanced manufacturing Automation Basic coding scripts that fit into business operations (understand how the data was developed to be able to communicate about the data) (basic skills, not necessarily that all employees will use, but more that they understand the process) Ability to find new ways to complete tasks 			
<p>5. Changing workplace cultures to encompass more collaboration, greater use of talent, workplace flexibility, and emphasis on values, and business ethics</p> <p>Discussion points:</p> <ul style="list-style-type: none"> Increased value on personal time, flex scheduling More open workspace Changes based on the #MeToo movement and culture—culturally sensitive, respect for others, sexual harassment Increased ethics training Oversensitivity to implied tone in emails/text Culture needs to be set by leadership. More collaborative workplace—flat organization versus hierarchical organization Management needs to be able to adapt to different communication styles preferred by various generations in the workplace. Move toward group interviews with multiple managers to help “hire for culture” Some companies using Meyers Briggs to help people understand preferences and differences. Changing recruitment strategies <p>Needed skill sets:</p> <ul style="list-style-type: none"> Communication skills (using face-to-face communication) Written communications Agile thinking (skillset and methodology) Leadership skills (be the example to help facilitate change) Ability to identify values of company Ability to understand psychology of people/bias/tolerance 	X		

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Top Trends in Wisconsin	Business Management	Finance	Marketing
<ul style="list-style-type: none"> Human behavior training Emotional intelligence skills Need to be willing to fail 			
<p>6. Increasing digital communication paired with a decrease in the use of emotional intelligence in communication efforts</p> <p>Needed skill sets:</p> <ul style="list-style-type: none"> Generational understanding Written communication Phone skills Ability to conduct and participate in webinars Customer service skills and customer interaction skills Being concise, brief Writing a compelling message (i.e., headline writing, email subject line) <ul style="list-style-type: none"> Head and heart messaging Technical writing—specific to digital Ability to use multiple styles of communication (capability to select the right communication channel) 		X	
<p>7. Growing need for cybersecurity measures that stay up to date with potential threats—including cloud cybersecurity</p> <p>Needed skill sets:</p> <ul style="list-style-type: none"> Ability to be flexible and aware of changes around you—nimble Understanding the related risk 		X	
<p>8. Rapidly changing and complex regulations</p> <p>Discussion points:</p> <ul style="list-style-type: none"> Changing regulations around sustainability Changing regulations around marketing and privacy laws Ability to understand how regulations affect business decision making 		X	

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Top Trends in Wisconsin	Business Management	Finance	Marketing
<ul style="list-style-type: none"> Sustainability/Conservatism/Green movement heavily affecting regulations An emerging occupational area combines marketing/compliance/legal <p>Needed skill sets:</p> <ul style="list-style-type: none"> Intellectual curiosity Ethics—letter of the law/spirit of the law Understanding basics of legal theory—authorization, impact, process of the system Practical application of industry knowledge 			
<p>9. Increasing importance of brand management</p> <p>Needed skill sets:</p> <ul style="list-style-type: none"> Understanding intersection between one’s opinion and the brand one represents Understanding the line between representation of one’s own brand vs. company brand Ability to connect the brand to the customer visually, verbally, via story, via channel, etc. Ability to understand customer story and journey Knowledge of marketing mix and its evolution Ability to genuinely align brand to mission Ability to identify and build relationships with business partners who can help strengthen and improve brand Ability to understand all aspects of the business Manage personal brand effectively 			X
<p>10. Greater emphasis on employee engagement</p> <p>Discussion points:</p> <ul style="list-style-type: none"> Different generations want to engage in different ways. Employees want leaders to be engaged as well. The way companies engage with employees and promote employee engagement may be indicative of the way companies engage with customers or stakeholders. More millennials want to work for companies that are purpose driven, mirror their own values, and give back to the community. 			X

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Other Trends

Technology

- Changing retail experiences and desires—targeting online shoppers vs. brick and mortar shoppers from a marketing perspective
- Increase in global work teams. Many teams meet via virtual meeting and struggle with time and communication differences.
- Varying communication styles based on generation—communication via screen vs. face-to-face—necessitates need for more collaboration in the workplace to overcome communication differences
- Increased willingness of consumers to pay for online information and viewing
- More consumer interaction through technology
- Increasing reliance on technology may be bringing about an overdependence—when something doesn't work, productivity may stop. Younger employees are less likely to take ownership and work to resolve problems or move forward in these instances.
- Greater need for business leaders to understand technology needs of customers
- Increased drive for instant gratification and fast, efficient service
- Changing labor forces due to technology such as automation, systems integration, systems thinking, robot process automation, and business systems connected through technology
- Automation is decreasing comprehensive systemic thinking in the finance world. Employees are laser-focused on their own area of transactions without the broader understanding of potential impact on the larger process.
- Trends in automation
 - Automated process for hotel reservations
 - Robotics in manufacturing, lean manufacturing (to gain more perspective on the intersection of lean manufacturing and AI, read this [blog post](#) by Andrew Quibell on the Lean Enterprise Institute website).
- Increase in peer-to-peer lending
- Fewer customers banking in person---increase in virtual bank tellers
- More tech solutions being devised to comply with changing regulations
- Increase in use of e-signatures
- Government is lagging behind technical changes in the banking industry
- Technology solutions often going into production without proper testing due to the rapid pace of change. Change and process management skills are in high demand.

Technology (cont'd)

- Greater need for data integration based on company mergers

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- More outsourcing of technology solutions with contract vendors
- Need for basic computer programming and data management knowledge including Sequel programming
- More cross-functional exposure happening (and more needed) between technology and business units
- Increasing questions around data ownership based on 3rd party services and storage
- Technology may be leading to a decrease in critical-thinking skills
- Increased use of mobile platforms and video
- Technology allows more personalized shopping experiences
- 3D printing becoming more prevalent
- Social media increasingly used as a PR function
- Video content increasingly driving online searches

Cultural

- Workplace cultures adapting (and sometimes struggling) to accept more personal styles which can greatly vary for traditional business expectations
- Brands working to establish more trust among customer groups
- Increasing polarization of expectations in the workplace—expectations may vary from location to location based on culture or other factors
- Growing consumer and employee desire for more authentic experiences
- Push for more inclusive company cultures based on diversity of employees
- Decreasing employee loyalty—companies can help by providing more professional development for employees
- More employees working with employers to carve out new pathways within a company in a bid to use more of their talents and meet more needs of the company
- Employees focused inward rather than just on company goals—both companies and employees are striving to find balance. Work-life balance is something being talked about in companies.
- Recognition of workplace culture on bottom line for many companies—managers must play a role in developing and maintaining culture instead of focusing only on mechanics of running a unit
- Decrease in motivation and a general culture of caring about a business from employees. Greater emphases on personal gains rather than business gains.
- Increase in personal branding efforts

Cultural (cont'd)

- Increase in worker autonomy—less governance over day-to-day process and decentralized control. Holacracy, a model in which power is spread among teams, rather

than only among managers, is a newer way of organizing workplaces. Learn more about the concept from this [article](#) in *Harvard Business Review*.

- Increase in remote working opportunities
- Business ethics:
 - Communication and social media
 - More companies are providing ethics training
 - More companies are devising codes of ethics
 - Company cultural values and ethics being posted upfront and communicated openly through various channels—sometimes in job postings, and various locations throughout the physical office locations
 - Increased emphasis on accountability of both businesses and employees
- Employee loyalty decreasing
- Many millennials want to be challenged in their work and grow new skill sets rather than work in a “predictable 9-5” job zone.
- “Fail fast” concept is being widely adopted by all kinds of businesses.
- Paid time off is becoming a more coveted benefit.
- Less formality in the workplace in terms of dress code, etc.
- Increasing need to differentiate service to customers
- Moving to a more informal based employee evaluation system. More coaching and “check-ins” versus formal and written evaluation system.
- Increase in job ghosting—when someone accepts a position but doesn’t show up on first day for work.
- Increase of user-generated content
- Increase in storytelling approaches in marketing
- Increase of fake news and information
- More political polarization
- Buying experiences vs. goods
- More pressure on companies to take a stand on political issues
- Some human resources and public relations functions merging as a joint approach for both internal and external customers and employees.
- Emphasis on sustainability
- Increase in hyperlocal marketing
- Increase in user-generated online reviews

Cultural (cont’d)

- Consumers making more purchasing decisions based on a business’s values/community involvement/sustainability
- Growing consumer desire for transparency in business

- Drive to innovate is growing
- Isolation based on social media communities may be increasing polarization

Global

- Greater need for bilingual employees who have learned a second language with an emphasis on understanding business in an alternative culture. Recommendation for greater emphasis on education opportunities that offer early immersion options.
- More diverse working styles based on cultural influences
- Greater need for agile change processes—especially as it relates to international companies acquiring local or regional companies. International management ambassadors (global management employees who guide American companies) can help with this. [This article](#) by Melissa Lamson for Inc. highlights the global management concept.
- More international companies operating in the U.S. The global environment is no longer based on political definitions, borders, and history. It is now more based on practices and culture in the global economy
- Ethics in hiring practices for non-citizens is being stressed. Trend is moving more towards concern about who is hired (eliminating employees who have years of experience, but have limited ability to replace employees, which could increase job shortages)
- Social media driving more business decisions
- Changing learning styles—trend toward more experiential learning
- Supply chains becoming more global—business leaders and employees need to understand cultures affiliated with their supply chains
- Increasing geopolitical forces affecting businesses. Many employees need to understand global effects on interest rates, curve yields, supply chains and logistics, purchases of currency, trade partners, etc.
- Increase in protectionism— isolationism and xenophobia may be impacting available talent in technology areas. Trends in globalism may be reversing.
- Global marketplace having greater effects on local markets

Regulatory/Legal

- Decreasing access in the U.S. to workers from other countries. Individuals involved in recruiting/hiring global employees need to understand HB1 and HB2 visas.
- Increased focus on General Data Protection Regulations (GDPR)
- More emphasis on real-time fact checking—younger generations are questioning business decisions and are backing up their inquiries with facts based on their own research.
- Increase in attention to and knowledge around privacy issues. An example of this is user agreements related to mobile applications.
- Increased concern about personal exposure for business decisions
- Increase in contract workers. Discussion points:
 - Costs
 - Liability
- Decrease in onboarding, safety training, and on-the-job mentorships
- Increase in reactionary hiring based on short-term needs without attention to long-term implications. Results in less relationship building throughout the recruitment and hiring process, and less drive to make sure candidates are a good fit for company culture.
- Auditors are becoming more specialized and aren't always in a position to understand broader system issues or impacts.
- Legalization of marijuana in some states and federal banking regulations are difficult to navigate.
- Increased banking regulations
- Push for more certifications at all levels in finance industry
- Transition to International Financial Reporting Standards (IFRS) from Generally Accepted Accounting Principles (GAAP). IFRS is more international-based and is being widely adopted on a global scale.

Governance

- Increase in demand for transparency about public funding
- Increasing awareness regarding discrimination versus targeting through social media channels
- Emerging concerns about internet regulation and social media marketing

Business Ethics/Ethical Leadership

MBA Research and Curriculum Center and the [Daniels Fund](#) have formed a partnership to promote the teaching and learning of business ethics at the high school level. As part of our research to help strengthen our curricula and instructional materials in the business ethics realm, we asked Wisconsin panelists to rate the importance of ethical leadership traits included as performance indicators in our National Business Administration Standards.

Ethical Leadership Trait Evaluation

Panelists were almost unanimous in their indications that all the traits listed were either critical or recommended.

This table represents answers from the Business Management, Finance, and Marketing groups combined. The traits are listed in order based on the “critical” column. As shown below:

- Skills related to demonstrating honesty and integrity, and treating others with dignity and respect were indicated as critical by 96% of the panelists.
- The most recommended trait with a 62% vote is “Determine personal vision.”

Wisconsin Futuring Panels Ethical Leadership Traits

Please indicate the importance of the following descriptions of ethical leadership traits:

Ethical Leadership Trait	Critical	Recommended	Not Needed	Nonresponse
Demonstrate honesty and integrity.	96%	4%	0%	0%
Treat others with dignity and respect.	96%	4%	0%	0%
Demonstrate responsible behavior.	93%	7%	0%	0%
Take responsibility for decisions and actions.	89%	9%	0%	2%
Model ethical behavior.	89%	11%	0%	0%
Build trust in relationships.	84%	16%	0%	0%
Recognize and overcome personal biases and stereotypes.	80%	18%	2%	0%
Foster open, honest communication.	76%	24%	0%	0%
Demonstrate fairness.	73%	24%	0%	4%
Follow rules of conduct.	73%	16%	0%	11%
Demonstrate problem-solving skills.	71%	16%	2%	11%
Recognize and respond to ethical dilemmas.	67%	33%	0%	0%
Ethical Leadership Trait	Critical	Recommended	Not Needed	Nonresponse
Show empathy for others.	67%	33%	0%	0%

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Exhibit cultural sensitivity.	67%	31%	2%	0%
Assess personal strengths and weaknesses.	65%	35%	0%	0%
Participate as a team member.	64%	36%	0%	0%
Make decisions.	64%	24%	2%	11%
Assess personal behavior and values.	56%	42%	0%	2%
Assess long-term value and impact of actions on others.	55%	33%	2%	11%
Foster positive working relationships.	53%	36%	0%	11%
Explain the use of feedback for personal growth.	49%	47%	4%	0%
Enlist others in working toward a shared vision.	47%	51%	2%	0%
Assess risks of personal decisions.	45%	47%	2%	5%
Describe the nature of emotional intelligence.	42%	56%	2%	0%
Explain the nature of effective communications.	40%	55%	2%	4%
Explain the concept of leadership.	38%	55%	4%	4%
Set personal goals.	38%	44%	7%	11%
Explain reasons for ethical dilemmas.	36%	60%	4%	0%
Explain the nature of ethical leadership.	36%	60%	2%	2%
Inspire others.	35%	58%	7%	0%
Describe the nature of ethics.	33%	58%	7%	2%
Develop an achievement orientation.	29%	53%	18%	0%
Determine personal vision.	22%	62%	11%	5%

Additional Recommended Ethical Leadership Traits

We also asked them to share additional ethical leadership traits and comments about ethics in the workplace from a general standpoint:

- Accountability
- Transparency
- Viability
- Ethical compass
- Establish core (illegible)
- Embody core values (right from wrong, know when to engage others when in doubt)
- Continuing education
- Give examples of what is not ethical behavior
- Learning from mistakes
- Act in the client's best interest
- Exhibit and foster humility

In thinking about ethical leadership traits and business ethics in general, panelists indicated that it is important to:

- Be transparent and know that being ethical can increase vulnerabilities in some ways but strengthen our position in many others.
- Use the “newspaper test” suggested by finance mogul Warren Buffet—if this incident showed up in the newspaper, how would you want it to read?
- Be a team player.
- Encourage training programs in ethics.
- Teach by example.
- “Tone at the top”—if you expect ethical behavior, make sure leaders are providing the example.
- Make ethical behavior a part of company culture.
- Evaluate how ethical issues are dealt with in terms of risk to the company brand.
- Handle stakeholder data with great care and evaluate its collection and use through a business ethics lens.
- Build a powerful brand with an ethical foundation.

Business Administration Careers and Certifications

Futuring panel participants were invited to talk about career pathways, occupations, and certifications. We received feedback about whether or not credentials were deemed necessary in their fields, and the relevance of various credentials.

Here is how professionals responded to the necessity of credentials in their fields:

Are Credentials Necessary in Your Field?	Yes	No	Nonresponse
Business Management	47%	27%	27%
Finance	76%	12%	12%
Marketing	43%	48%	9%

We also asked participants to help us understand what credentials and certifications are important in their industries, at what stage particular certifications and credentials are important, and whether or not their companies provide support in obtaining credentials and certifications.

Common themes within each cluster regarding credentials/certifications that panelists emphasized as required are as follows:

- Business Management
 - Bachelor's and master's degrees (MBA)
 - Project management/Six Sigma certifications
- Finance
 - Bachelor's and master's degrees (MBA)
 - Certified Public Accountant (CPA)
 - Certified Financial Planner
- Marketing
 - Bachelor's and master's degrees (MBA)
 - Certifications in marketing technology
 - Digital/Social media certifications

Please see Appendix for detailed responses to credentialing and certification survey.

Panelists' Comments About Credentialing/Certification

Business Management Cluster Comments

- Our organization in association management also manages organizations that provide continuing education for individuals to maintain and obtain certifications. CAE is typically for CEOs/executive directors that manage associations.
- Green belt/Lean certifications would be appropriate for high school students.
- Graduate degree in moral philosophy could be helpful.

Finance Cluster Comments

- In my area of banking, most entry-level jobs would need a 2-year degree, and then training and experience is needed to get promoted. The C-suite requires a bachelor's degree.
- Six Sigma and Lean are additional certifications and trainings that are nice to have in general for business.
- Most accredited certifications need prerequisite curriculum not available to high school students.
- Experience with accounting software a plus but not necessary. MBA/CPA would be needed for VP/C-level jobs.
- IQ or/and EQ testing are important.

Marketing Cluster Comments

- Credential/Certs: critical differentiator for initial job search and career advancement!
- Any certification in a specialized area of marketing (digital, e-commerce, even social, etc.) can help if applying or pursuing a specialized role. Statistical backgrounds and knowledge can be helpful.
- Entry level: Tech schools' certificates with marketing/digital design
- Mid-level: 2- to 6-year degree in marketing/business
- Senior level: Demonstrated ability to connect organization with customer needs
- I've had few situations where certifications were hard and fast required. Experience often trumps any certification. Most organizations moving to a more agile environment will require and pay for employees to get certifications.
- Again, real world experience is more important. Communication skills are relatively easy to learn on the job, so adaptability, intellect, and attitude are more important. I can always teach these communication skills—I can't teach soft skills and adaptability, which are critical in succeeding in communications.

Marketing Cluster Comments (cont'd)

- We look for memberships like PRSA and IABC for our professional communications. And software platform skills for digital roles—like proficiency with salesforce.com, HupSpot, Marketo, Google Analytics, etc. In all cases, a "nice to have" rather than a hard requirement. All are important to advance careers, and we as a business would pay to support—covering training costs, all T&E, etc.
- I am not aware of any specific credentials for Pharma Marketing—an MBA would help but is not required at all.
- Because I consult with many individual clients now, I also managed a large bank marketing department.
- Any training/certifications in sales/insight selling/customer research or marketing research (all about connecting with customers and meeting their needs)
- We do look for some credentialing for digital/creative positions. Marketing managers need at least a 4-year degree.
- We also ask for writing samples. We provide target audience and subject and ask for promotional/marketing writing samples.
- Any certificate that relates to communication helps.

Business Administration Pathways

MBA Research supplemented panelists' feedback with secondary research to compile various job titles and potential certifications at three different levels (where available) to indicate possible careers within Business Administration:

- **First-Level**—individuals with a high school diploma and potentially some entry-level experience within a field
- **Second-Level**—individuals with an associate's degree or some postsecondary credits and basic experience within a field
- **Third-Level**—individuals with a college degree and some work experience within a field

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Pathways Project Focus Groups

Business Management Cluster and Pathway Occupations and Certifications

Business Management Pathways	High School Diploma	Certifications	Some Postsecondary	Certifications	Postsecondary Diploma	Certifications
Administrative Services	Administrative Services Managers**	-	Executive Secretaries and Executive Administrative Assistants	Word 2016 Expert: Creating Documents for Effective Communication	First Line Supervisors of Office and Administrative Support Workers--ID	Certified Business Office Manager
	Office Clerks--ID	-	-	-		
	Receptionists and Information Clerks*	-	-	-		
	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive--ID	-	-	-		
Business Information Management	Project Coordinator	Certified Associate in Project Management (CAPM)	<i>Project Manager</i>	Project Management Professional (PMP)	Budget Analysts*	Certified Government Financial Manager®
General Management	Gaming Supervisors**	-	Lodging Manager	Certified Hotel Administrator (CHA)	Public Relations and Fundraising Managers**	Certified Fundraising Executive (CFRE)
	-	-		Certified Revenue Management Executive (CRME)	Association Manager/Top Executive*	Certified Association Executive (CAE)
	First Line Supervisors of Retail Sales Workers--ID	National Retail Federation--RISEUP Certifications			Meeting, Convention, and Event Planners**	Certified Meeting Professional (CMP)

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Pathways Project Focus Groups

Business Management Pathways	High School Diploma	Certifications	Some Postsecondary	Certifications	Postsecondary Diploma	Certifications
General Management	First Line Supervisors of Housekeeping and Janitorial Workers*	-			Human Resources Managers**	SHRM-Certified Professional (SHRM-CP)
Human Resource Management					-	Professional in Human Resources (PHR)
					Compensation and Benefits Manager**	Certified Compensation Professional (CCP)
					Training and Development Specialists**	
					<i>Talent Management Professionals</i>	Certified Professional in Learning & Performance (CPLP)
					General and Operations Managers**	Advanced Management and Leadership Certificate
Operations	Customs Brokers**	Certified Customs Specialists (CCS)			Logistics Managers	Certified in Logistics, Transportation and Distribution (CLTD)

Notes:

- Occupations marked with an * are growing at an average rate in Wisconsin based on national average growth rates (5-9%)
- Occupations marked with an ** are growing faster than the national average rate (10%+) within Wisconsin
- Occupations followed by ID (In Demand) are occupations that may or may not be growing but have large numbers of openings each year
- Occupations or certifications not linked to a source were provided solely by futuring panel participants and indicated as appropriate for the particular level at which they are placed on the chart

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Pathways Project Focus Groups

Finance Cluster and Pathway Occupations and Certifications

Finance Pathways	High School Diploma	Certifications	Some Postsecondary	Certifications	Postsecondary Diploma	Certifications	
Accounting	Statement Clerks**	Bookkeeper Certification			Accountants**	Certified Public Accountant (CPA)	
					-	Certified Management Accountant	
	-	-			Auditors**	Certified Internal Auditor (CIA)	
	Billing, Cost, and Rate Clerks**	Certified Medical Reimbursement Specialist	-	-		Certified Information Systems Auditor (CISA)	
	-	-	Assessors of Real Estate**	Residential Evaluation Specialist			
	Bill and Account Collectors	Professional Credit Associate					
	Bookkeeping, Accounting, and Auditing Clerks-- ID	Bookkeeper Certification					
	Tax Preparers**	National Bookkeepers Association Tax Certification					
	Banking Services	Loan Interviewers and Clerks*	National Association of Mortgage Brokers (NAMB) General Mortgage Associate			Loan Officer*	Certified Mortgage Servicer Certificate
		Teller	American Bankers Association (ABA) Bank Teller Certificate			Financial Managers, Branch or Department** ID	Certified Operations Examiner (COE)

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Pathways Project Focus Groups

Finance Pathways	High School Diploma	Certifications	Some Postsecondary	Certifications	Postsecondary Diploma	Certifications
Banking Services	New Accounts Clerks	-				
Corporate Finance					<i>Finance Manager</i>	
					<i>Reporting Manager</i>	
					Insurance Adjustors, Examiners, and Investigators	Chartered Property Casualty Underwriter (CPCU)
Insurance	Insurance Claim Clerks**	Associate in Claims			Risk Management Specialist**	Certification in Risk Management Assurance (CIMA)
	Insurance Policy Processing Clerks**	Associate in General Insurance			-	
	Sales Agents, Financial Services**	-			Brokerage Clerks**	
Securities and Investments					Sales Agents, Securities and Commodities**	Financial Industry Regulatory Authority (FINRA) Series 7-- General Securities Representative Exam
					Personal Financial Advisor*	Financial Industry Regulatory Authority (FINRA) Series 65---Uniform Investment Advisor Law Exam

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Finance Pathways	High School Diploma	Certifications	Some Postsecondary	Certifications	Postsecondary Diploma	Certifications
Securities and Investments					-	<u>Certified Financial Advisor (CFA)</u>
					-	<u>Certified Personal Wealth Advisor</u>

Notes:

- Occupations marked with an * are growing at an average rate in Wisconsin based on national average growth rates (5-9%)
- Occupations marked with an ** are growing faster than the national average rate (10%+) within Wisconsin
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Pathways Project Focus Groups

Marketing Cluster and Pathway Occupations and Certifications

Marketing Pathways	High School Diploma	Certifications	Some Postsecondary	Certifications	Postsecondary Diploma	Certifications
Marketing Communications	Marketing Clerks -- ID	Certified Pricing Professional (CPP)	<i>Copy Writers</i>		Public Relations Specialists**	Certificate in Principles of Public Relations
	<i>Social Media Brand Marketing Coordinators</i>	Professional Certified Marketer-- Digital Marketing	<i>Engagement Managers</i>		-	
		-	<i>Email Marketing Specialists</i>		Marketing Manager**	Certified Innovation Leader Credential
Marketing Management	<i>Marketing Assistant</i>				<i>Brand Managers</i>	-
					<i>Communications Director</i>	
Marketing Research					Marketing Research Analysts and Marketing Specialists**	Google Analytics Certifications
Merchandising	Customer Service Representatives- ID	National Retail Federation-- RISEUP Certifications	Procurement Clerk	-	Purchasing Manager**	Senior Professional in Supply Chain Management (SPSM)
	Merchandise Displayers and Window Trimmers**	-	-	-	Online Merchants**	Certified E-Commerce Manager(CMES)
	Counter and Rental Clerks	Certified Event Rental Professional				
Professional Sales	Real Estate Sales Agents**	Accredited Buyer Representative			Sales Manager**	Professional Certified Marketer--Sales Management
	<i>Sales Support</i>					

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Pathways Project Focus Groups

Notes:

- Occupations marked with an * are growing at an average rate in Wisconsin based on national average growth rates (5-9%)
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- Occupations or certifications not linked to a source were provided solely by futuring panel participants and indicated as appropriate for the particular level at which they are placed on the chart

Sources:

Bureau of Labor Statistics

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Budget Analysts, and on the Internet at <https://www.bls.gov/ooh/business-and-financial/budget-analysts.htm>.

O*NET OnLine Help

National Center for O*NET Development. O*NET OnLine Help: Find Occupations. O*NET OnLine. Retrieved August 19, 2019, from https://www.onetonline.org/help/online/find_occ.

Evaluation of Proposed Standards on Customer Experience and Innovation

MBA Research has been conducting primary and secondary research to help address increased demand for skills in those areas in the workplace. We invited futuring panelists to evaluate our proposed standards and tell us whether they thought skills outlined were Critical, Recommended, or Nice To Have.

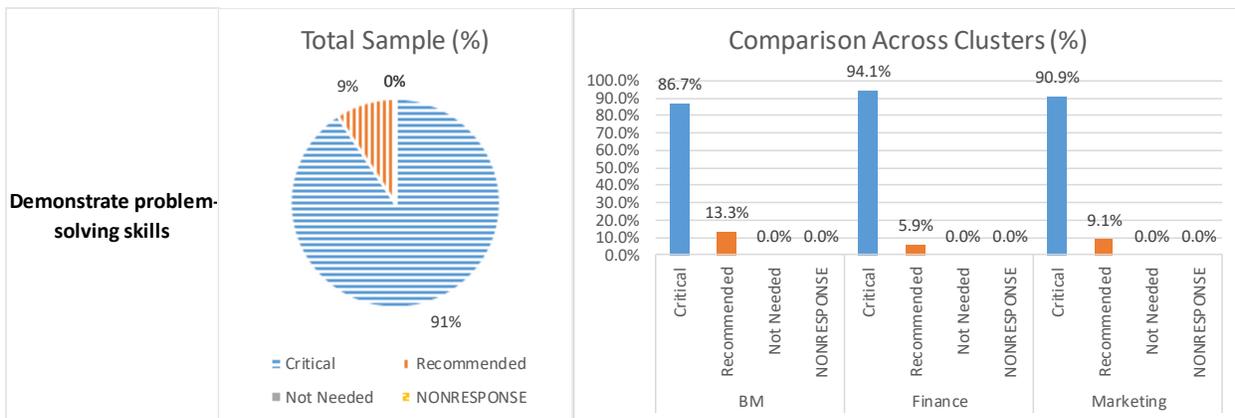
The charts included illustrate answers combined from all three clusters (in pie chart format) and a breakdown of responses by individual clusters (bar chart format).

Innovation Management

The skills evaluated in the Innovation Management section revolved around the following standard:

Understand the strategies and techniques used in the creation of a new process or product.

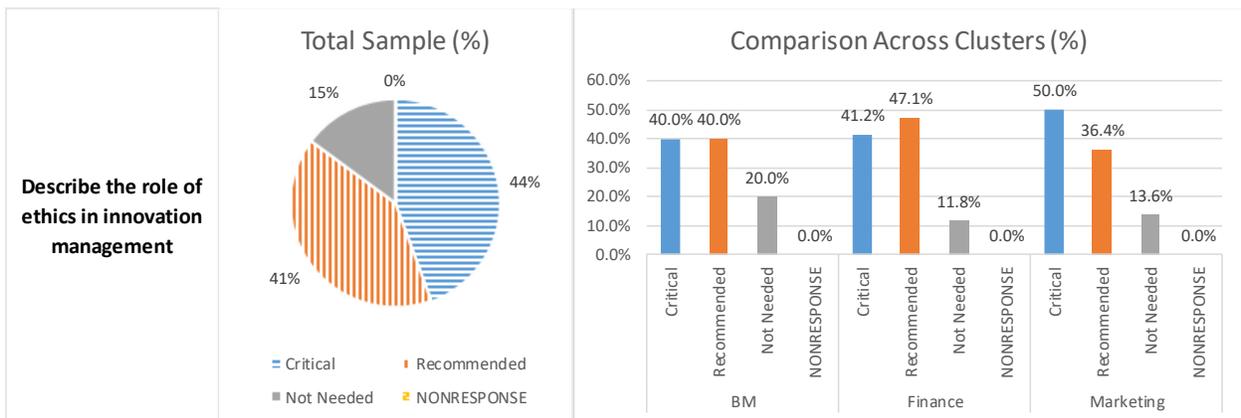
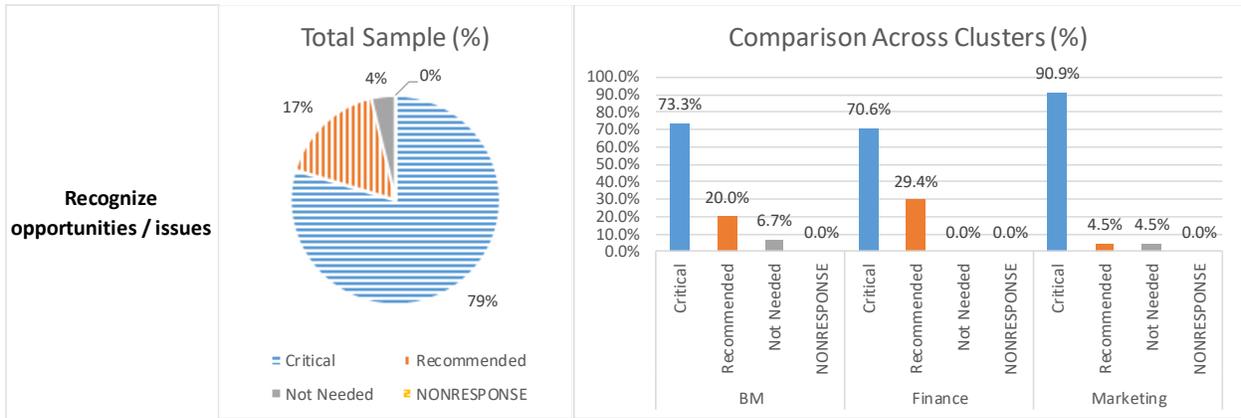
The skills deemed most critical by the combined business management, finance, and marketing groups in Wisconsin were the abilities to “demonstrate problem-solving skills” (91%) and “recognize opportunities” (79%). The proposed skill with the most votes for not needed was “Describe the role of ethics in innovation management” (15%). This still left 44% indicating that skill as critical and 41% indicating it as recommended.



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Pathways Project Focus Groups

Innovation Management (cont'd)



Please see Appendix for further details on Business Management, Finance, and Marketing panelists' opinions related to Innovation Management skills.

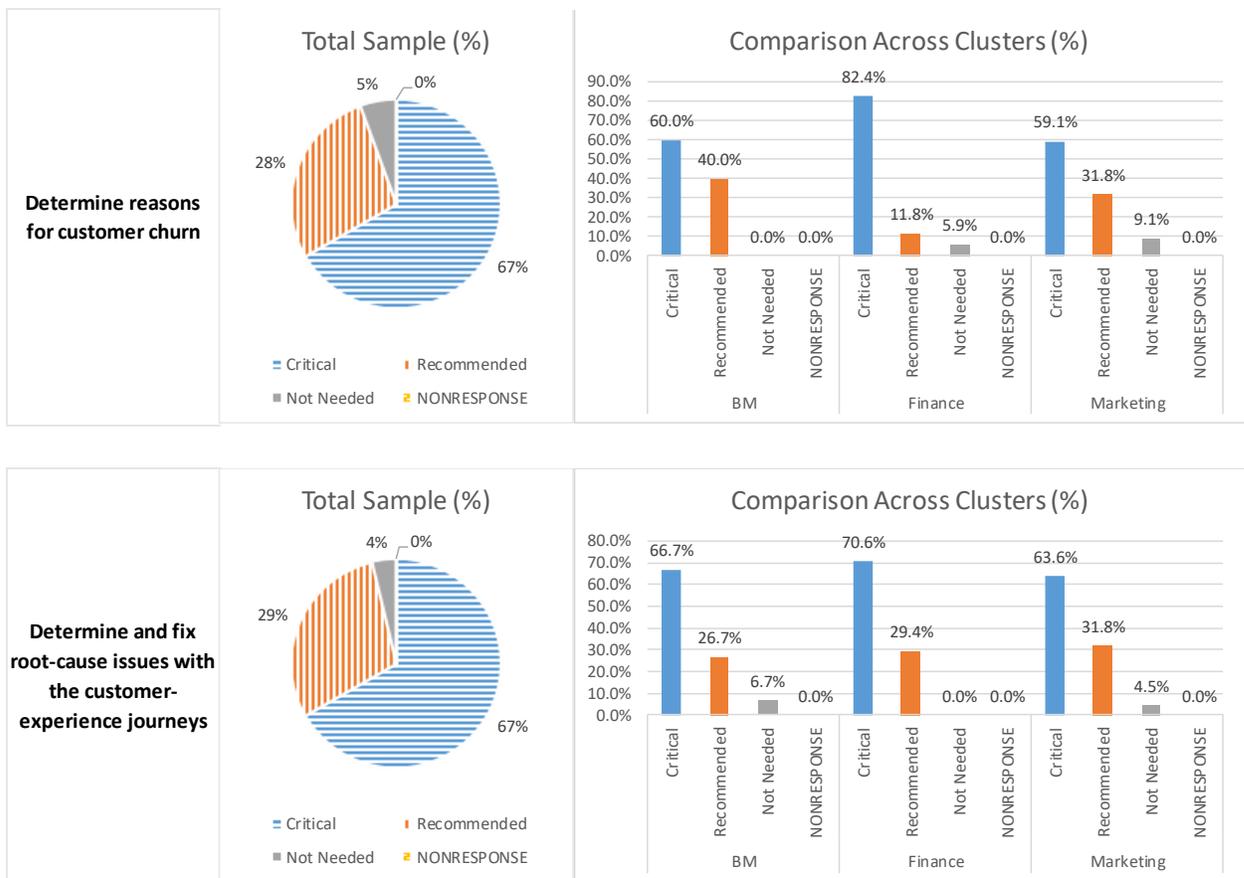
Customer Experience Management

The skills evaluated in the Customer Experience Management section revolved around the following standard:

Understand the strategies and techniques used to create customer-centric experiences.

The skills deemed most critical in the Customer Experience Management learning area were:

- “Determine reasons for customer churn.” (67%)
- “Determine and fix root-cause issues with the customer experience journeys.” (67%)



Please see Appendix for further details on Business Management, Finance, and Marketing panelists’ opinions related to Customer Experience Management skills.

Marketing—Innovation Management; Branding

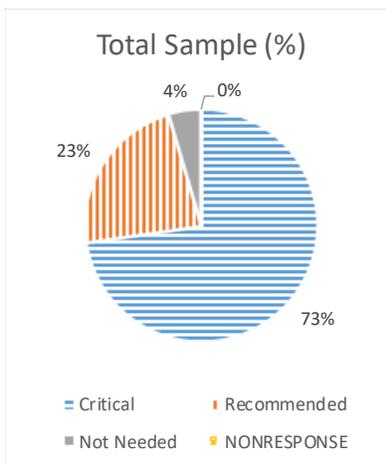
In addition to evaluating skills for potential inclusion in MBA National Standards Business Administration Core, marketing participants were asked about Innovation Management and Branding skills for potential inclusion in the Marketing Cluster Core only.

The skills evaluated by marketing panelists only for the **Innovation Management** section revolved around the following standard:

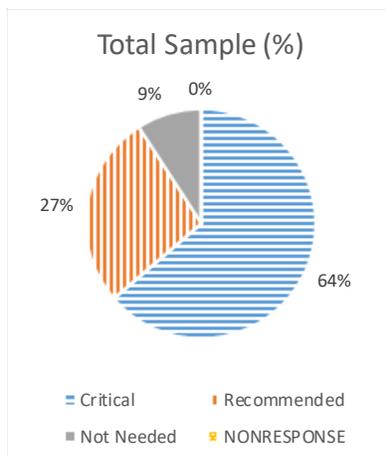
Understand the strategies and techniques used in business innovation.

One of the skills that marketing panelists indicated was most critical was:

- “Identify product opportunities.”



They also felt that being able to identify methods/techniques to generate a product idea was very critical:



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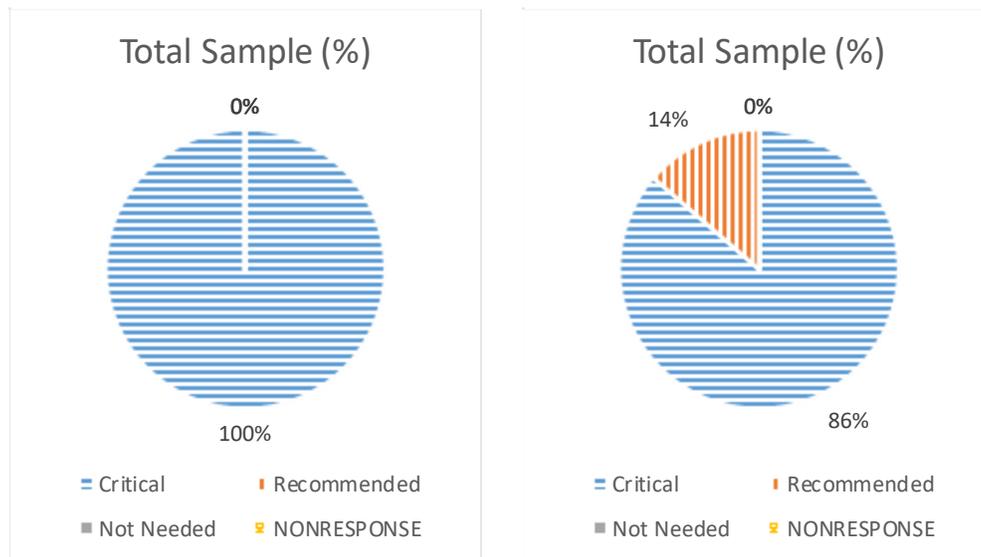
Pathways Project Focus Groups

The skills evaluated by marketing panelists only for the **Branding** section revolved around the following standard:

Understand the concepts, techniques, and strategies used to develop, identify, maintain, build, and improve a company or product image.

The two areas marketing panelists indicated as most critical in terms of branding were:

- “Explain the nature of branding.”
- “Identify the company’s unique selling proposition.”



Please see Appendix for further details on Marketing panelists’ opinions related to Innovation Management and Branding skills.

Implications and Recommendations

Based on feedback from futuring panelists, MBA Research and Curriculum recommends the following:

1. Support educators and administrators in learning about the global impact of business, generations in the workforce, and their effects on workplace culture.

In 2014, 17.9% of Wisconsin's residents were considered part of a minority group (<https://www.governing.com/topics/urban/gov-majority-minority-populations-in-states.html>). That number represented an increase of 1.1% since 2010. Wisconsin is the 38th state in terms of size of their minority population.

At the same time, there are five generations currently in the workforce:

- Generation Z
- Generation Y (millennials)
- Generation X
- Baby Boomers
- The Silent Generation

Additionally, globalization sets the stage for working with people from varying countries and cultures worldwide both from a collegial and a customer perspective.

MBA Research recommends providing opportunities for educators to gain first-hand knowledge about how cultural and generational landscapes are changing in Wisconsin workplaces. Encourage them to connect with businesses in their area to learn how these shifts affect the way they work. Cultural diversity may not always be evident in a Wisconsin office location but may be present in supply chain management or offshore staffing efforts. One futuring panelist in the travel and tourism industry indicated that they are paying special attention to this area as they hire and train new employees in the hotel lodging arena.

2. Support teachers with access to tools that will help expand their understanding of technology in business today.

A number of the top trends identified by Wisconsin executives were based on technology trends (e.g., cybersecurity, adaption, automation, data analytics, etc.). Wisconsin's tech-based economy is growing, and futuring panelists made it clear that all business employees need to have a certain amount of "tech-savvy" to thrive in the business world.

Futuring panel executives emphasized that a key skill for success today is being able to understand the analytics process, interpret the data, and communicate the results to others. In relation to technology, MBA Research recommends the following:

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- Collaboration among Wisconsin Business and Information Technology and Marketing, Management, and Entrepreneurship CTE clusters to offer formal and informal insight to teachers and students into the utilization of technology in business—and the utilization of business in technology.
- The use of free, online courses for educators that could offer a beginning platform for concepts such as data analytics. Coursera offers [Data-driven Decision-Making](#), and [Introduction to Cybersecurity for Business](#). Both of these courses are at the beginner level and are designed to provide an overview to the content area.

The article [DIY Mindset Reshaping Education](#) by Dian Schaffhauser, for STEAM Universe helps make the case for online learning for both students and professionals.

- The book “[Behind Every Good Decision](#)” by Piyanka Jain and Puneet Sharma also offers a place to start learning about data driven decisions.
3. Encourage educators to connect with compliance and risk management professionals to learn more about growing complexities in these areas. While listed as separate trends, the two are intertwined. Panelists emphasized the importance of “big picture” thinking in both of these areas and noted that minding risk and compliance issues have taken on a broader role in organizations, requiring many employees within a business to actively think about both areas as a part of their normal work routine. Risk management was especially equated with perils around online communication for business and online brand management.

Educators can heavily leverage business engagement relationships to further their understanding of compliance and risk management issues faced by businesses in their own area.

4. Encourage educators to steep themselves in and use communication apps and tools used by their students. Changing communication styles and methods are creating tensions in the workplace. New communication apps seem to be cropping up in a social context but are often used as workplace communication mediums and are put to use very quickly in marketing efforts. Educators are in a unique position to be exposed to and understand communication tools and patterns used by many young people. They can take that a step further by using the tools themselves in order to bring more credibility to their conversations with their students about communication styles, habits, and skills in the workplace.
5. Offer educators formal training in project management. A project management approach in the classroom can help prepare students for the workplace and help foster the teamwork and communication skills needed for success.

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One Wisconsin teacher, Mary Byrns, a business educator at Black River Falls Middle School and High School has participated in the Project Management Classroom Initiative, a partnership between the Project Management Institute Educational Foundation (PMIEF) and MBA Research. As a result of her training, Ms. Byrns will be conducting project management based training for other Wisconsin teachers.

Here is a further description of the initiative:

The purpose of the Project Management Classroom Initiative is to bring project management in the classroom. MBA Research has partnered with Project Management Institute Educational Foundation (PMIEF) to develop train-the-trainer modules to help teachers understand project management. Fifty teachers throughout the country representing all grade levels and content areas were selected to attend an extensive two-day training to become project management trainers. The project management trainers are responsible for reaching 100 other educators by offering five training sessions in their state over the span of the next school year with the goal of those educators bringing project management into the classroom. Free teacher resources have been developed for this initiative and are available on our [website](#).

Additionally, we recommend strengthening and expanding Wisconsin's High School of Business program participation as it uses a project based delivery model.

6. Offer teachers information and resources to help them understand workplace cultures that are changing to become more flexible and increase employee engagement. The New York Times recently published this [article](#) highlighting the role younger generations are playing in pushing companies to increase options for flexibility.
7. Provide opportunities to help educators learn to access and utilize workforce data that can aid them as they articulate the importance of business administration programs and advocate for stronger ones.

In 2026, the 100 occupations (out of 714) containing the most positions in Wisconsin are projected to provide approximately 2,211,750 jobs across the state (according to [Projections Central](#), a workforce product funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration). Out of those 100 largest jobs, over 30% of them are business administration related. They also contain about 30% of the total positions—703,250—of the 2,211,750. When Wisconsin jobs are analyzed from a rate-of-growth perspective, 36 out of the top 100 fastest growing occupations are business administration related.

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Educators can access Projections Central or the U.S. Bureau of Labor websites to analyze workforce data in Wisconsin and across the U.S. MBA Research can assist in the identification of workforce data that may help highlight the importance of business administration programs.

8. Trends in brand management were a top area of interest for marketing panelists. They were focused on how brands are built and the increasing challenges in managing brands in a global community in which information travels very quickly.

To help educators better understand brand management efforts, the Wisconsin Department of Public Instruction can get them involved in a continued branding effort around business administration programs, utilizing the data shared in recommendation #6. Educators can build on this data and use it to communicate a brand that has a data foundation of fast growing and in-demand business administration occupations in Wisconsin.

9. Expose educators to resources that can help them learn how workplace cultures are changing to embrace collaboration and flexibility. Help them understand the growing social entrepreneurship movement. Working for companies with a social or environmental mission (or starting one themselves) is an avenue for many employees to feel more engaged in their work, with the idea that they aren't just making money—they are making a difference in the world. While younger workers may be more likely to job hop, they are very interested in sharing values with a company. At the same time, employees want to make sure their leadership is engaged with them, and mindful about the impact of their business or product on the community.

Educators have a great opportunity to learn more about how businesses can impact their communities by becoming familiar with social entrepreneurship concepts and understanding how they are defined. [B Local Wisconsin](#), a voluntary collaboration of certified B Corps, etc. is a great place for educators to visit and grow their understanding of the concept of social ventures.

10. Leverage the contacts made and relationships formed during the futuring panels. Continue to keep panelists updated on issues related to business administration education and identify areas in which they can assist or contribute if they desire.

Additional Resources

MBA Research developed comprehensive resources for use in the classroom as students are preparing for success in the workplace. Each resource contains instructor resources, student activities, and assessments. All of the resources are available in WISELearn. While the resources will help strengthen student skills in relation to a number of trends, we have listed the primary trend identified by panelists that we feel aligns most closely to specific resources.

1. [Valuing Diversity](#) (Trend #1—Shifting demographics in the workplace)
2. [Giving Oral Presentations](#) (Trend #6--Increasing digital communication)
3. [Respecting Others](#) (Trend #1--Shifting demographics in the workplace)
4. [Building Positive Work Relationships](#) (Trend #1--Shifting demographics in the workplace)
5. [Collaborating with Others](#) (Trend #1—Shifting demographics in the workplace)
6. [Adaptability](#) (Trend #2—Increased use of automation, IOT, and analytics)
7. [Tolerating Ambiguity](#) (Trend #2-- Increased use of automation, IOT, and analytics)
8. [Communicating Effectively](#) (Trend #5—Communicating Effectively)
9. [Leading Change](#) (Trend #5—Communicating Effectively)
10. [The Spirit and Intent of Laws](#) (Trend #8—Rapidly changing and complex regulations)

Appendix

Proposed Innovation Management and Customer Experience Management Standards for Business Administration Core

Introduction

- The text box (right) contains the performance indicator statement (skill set). It is to this statement that survey respondents answered “Critical,” “Recommended,” or “Not Needed.”
- The pie chart (far right) is a breakdown of the responses as a whole, based on the combined sample of all three clusters (55 responses in all).
- The bar graph (below left) breaks down response data based on cluster (Business Management, Finance, and Marketing).
- The bar graph (below right) compares the sample sizes of the different clusters to each other and to the total sample size.

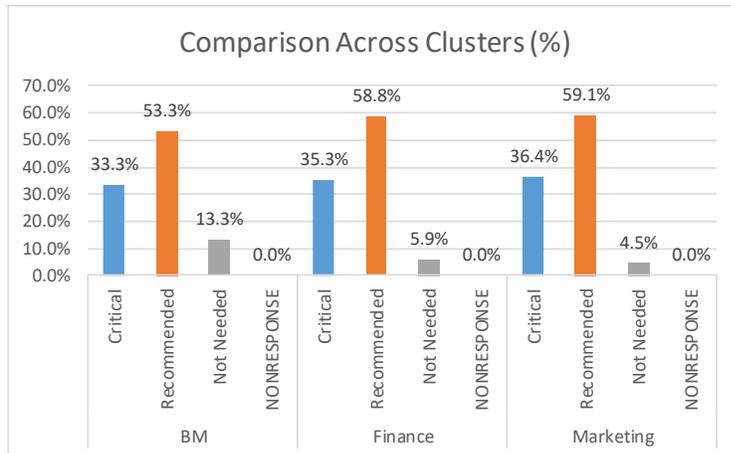
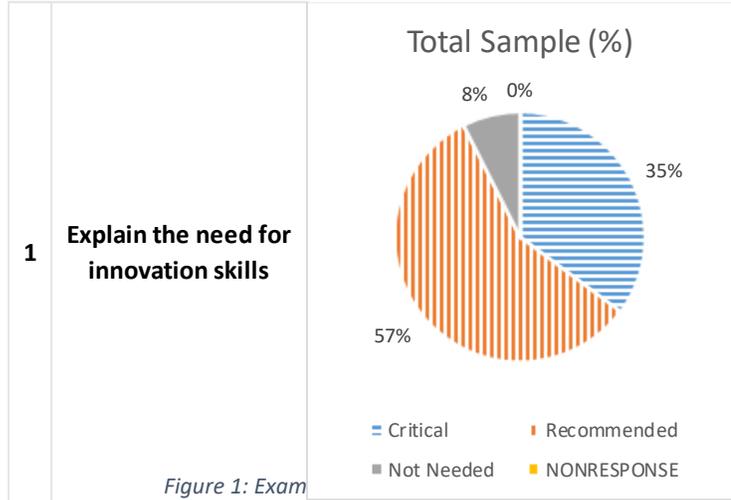


Figure 3: Example "Comparison Across Clusters" Bar Graph

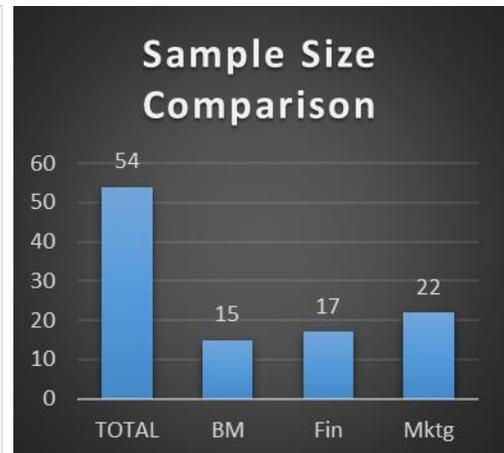
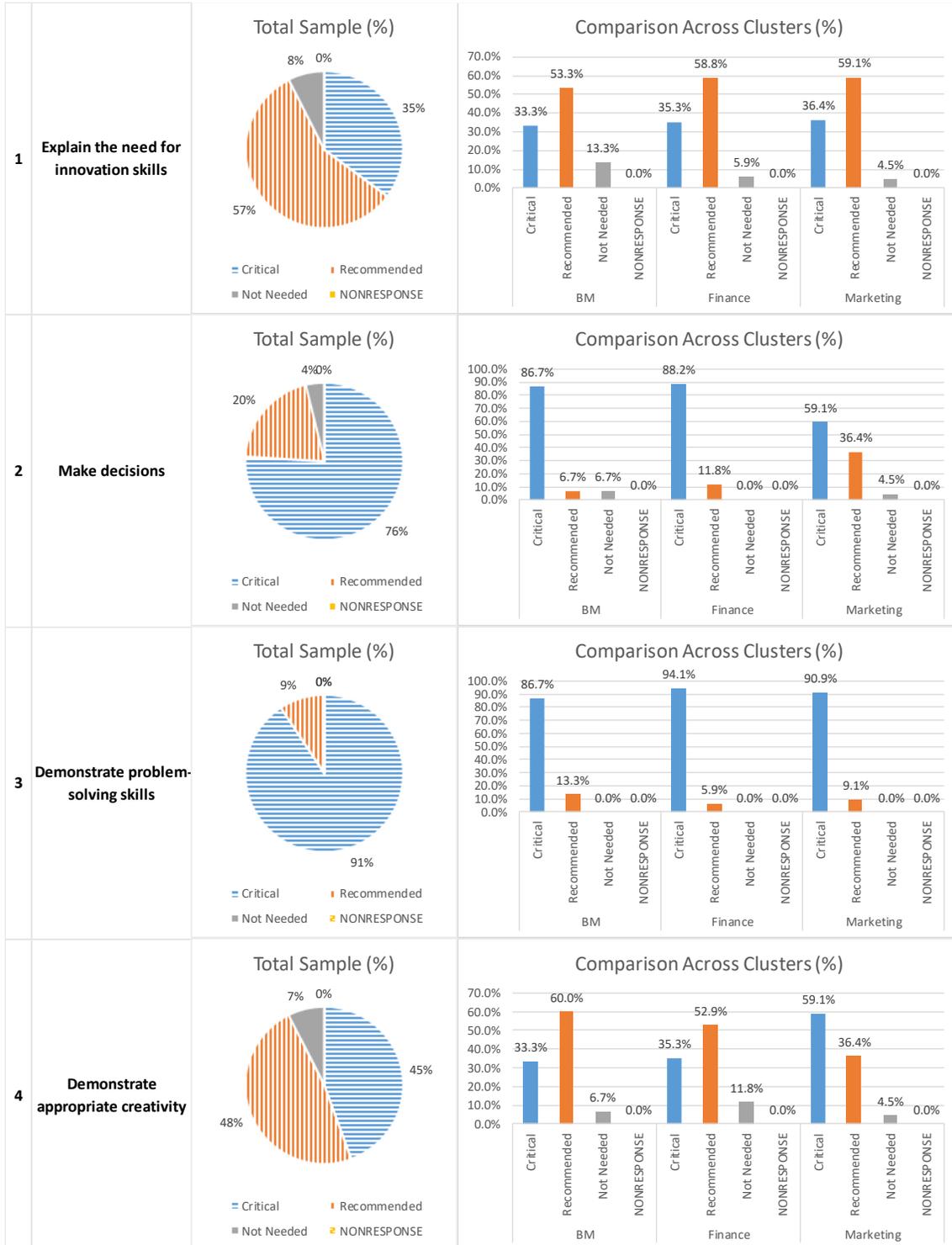


Figure 2: "Sample Size Comparison" Bar Graph

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Pathways Project Focus Groups

Innovation Management—All Clusters



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Pathways Project Focus Groups

Innovation Management—All Clusters (cont'd)

<p>5</p> <p>Describe types of business innovation (radical change to products, radical change to processes, incremental improvement to products, incremental improvement to processes)</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>	<p>Comparison Across Clusters (%)</p> <table border="1"> <thead> <tr> <th>Cluster</th> <th>Critical (%)</th> <th>Recommended (%)</th> <th>Not Needed (%)</th> <th>NONRESPONSE (%)</th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>26.7%</td> <td>66.7%</td> <td>0.0%</td> <td>6.7%</td> </tr> <tr> <td>Finance</td> <td>41.2%</td> <td>52.9%</td> <td>5.9%</td> <td>0.0%</td> </tr> <tr> <td>Marketing</td> <td>40.9%</td> <td>45.5%</td> <td>13.6%</td> <td>0.0%</td> </tr> </tbody> </table>	Cluster	Critical (%)	Recommended (%)	Not Needed (%)	NONRESPONSE (%)	BM	26.7%	66.7%	0.0%	6.7%	Finance	41.2%	52.9%	5.9%	0.0%	Marketing	40.9%	45.5%	13.6%	0.0%
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<p>6</p> <p>Explain factors affecting innovation strategies</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>	<p>Comparison Across Clusters (%)</p> <table border="1"> <thead> <tr> <th>Cluster</th> <th>Critical (%)</th> <th>Recommended (%)</th> <th>Not Needed (%)</th> <th>NONRESPONSE (%)</th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>13.3%</td> <td>73.3%</td> <td>13.3%</td> <td>0.0%</td> </tr> <tr> <td>Finance</td> <td>35.3%</td> <td>52.9%</td> <td>11.8%</td> <td>0.0%</td> </tr> <tr> <td>Marketing</td> <td>31.8%</td> <td>45.5%</td> <td>22.7%</td> <td>0.0%</td> </tr> </tbody> </table>	Cluster	Critical (%)	Recommended (%)	Not Needed (%)	NONRESPONSE (%)	BM	13.3%	73.3%	13.3%	0.0%	Finance	35.3%	52.9%	11.8%	0.0%	Marketing	31.8%	45.5%	22.7%	0.0%
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<p>7</p> <p>Recognize opportunities / issues</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>	<p>Comparison Across Clusters (%)</p> <table border="1"> <thead> <tr> <th>Cluster</th> <th>Critical (%)</th> <th>Recommended (%)</th> <th>Not Needed (%)</th> <th>NONRESPONSE (%)</th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>73.3%</td> <td>20.0%</td> <td>6.7%</td> <td>0.0%</td> </tr> <tr> <td>Finance</td> <td>70.6%</td> <td>29.4%</td> <td>0.0%</td> <td>0.0%</td> </tr> <tr> <td>Marketing</td> <td>90.9%</td> <td>4.5%</td> <td>4.5%</td> <td>0.0%</td> </tr> </tbody> </table>	Cluster	Critical (%)	Recommended (%)	Not Needed (%)	NONRESPONSE (%)	BM	73.3%	20.0%	6.7%	0.0%	Finance	70.6%	29.4%	0.0%	0.0%	Marketing	90.9%	4.5%	4.5%	0.0%
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Finance	70.6%	29.4%	0.0%	0.0%																		
Marketing	90.9%	4.5%	4.5%	0.0%																		
<p>8</p> <p>Generate ideas (associating, questioning, observing, experimenting, networking)</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>	<p>Comparison Across Clusters (%)</p> <table border="1"> <thead> <tr> <th>Cluster</th> <th>Critical (%)</th> <th>Recommended (%)</th> <th>Not Needed (%)</th> <th>NONRESPONSE (%)</th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>80.0%</td> <td>20.0%</td> <td>0.0%</td> <td>0.0%</td> </tr> <tr> <td>Finance</td> <td>58.8%</td> <td>41.2%</td> <td>0.0%</td> <td>0.0%</td> </tr> <tr> <td>Marketing</td> <td>63.6%</td> <td>27.3%</td> <td>4.5%</td> <td>4.5%</td> </tr> </tbody> </table>	Cluster	Critical (%)	Recommended (%)	Not Needed (%)	NONRESPONSE (%)	BM	80.0%	20.0%	0.0%	0.0%	Finance	58.8%	41.2%	0.0%	0.0%	Marketing	63.6%	27.3%	4.5%	4.5%
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Innovation Management—All Clusters (cont'd)

<p>9</p> <p>Test ideas to ensure solution requirements are met</p>	<p>Total Sample (%)</p> <p>46% 48% 4% 2%</p> <p>— Critical — Recommended — Not Needed — NONRESPONSE</p>	<p>Comparison Across Clusters (%)</p> <table border="1"> <thead> <tr> <th>Cluster</th> <th>Critical</th> <th>Recommended</th> <th>Not Needed</th> <th>NONRESPONSE</th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>66.7%</td> <td>33.3%</td> <td>0.0%</td> <td>0.0%</td> </tr> <tr> <td>Finance</td> <td>29.4%</td> <td>58.8%</td> <td>5.9%</td> <td>5.9%</td> </tr> <tr> <td>Marketing</td> <td>45.5%</td> <td>50.0%</td> <td>4.5%</td> <td>0.0%</td> </tr> </tbody> </table>	Cluster	Critical	Recommended	Not Needed	NONRESPONSE	BM	66.7%	33.3%	0.0%	0.0%	Finance	29.4%	58.8%	5.9%	5.9%	Marketing	45.5%	50.0%	4.5%	0.0%
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<p>12</p> <p>Describe relationship among innovation, learning, and change</p>	<p>Total Sample (%)</p> <p>37% 52% 11% 0%</p> <p>— Critical — Recommended — Not Needed — NONRESPONSE</p>	<p>Comparison Across Clusters (%)</p> <table border="1"> <thead> <tr> <th>Cluster</th> <th>Critical</th> <th>Recommended</th> <th>Not Needed</th> <th>NONRESPONSE</th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>26.7%</td> <td>66.7%</td> <td>6.7%</td> <td>0.0%</td> </tr> <tr> <td>Finance</td> <td>35.3%</td> <td>58.8%</td> <td>5.9%</td> <td>0.0%</td> </tr> <tr> <td>Marketing</td> <td>45.5%</td> <td>36.4%</td> <td>18.2%</td> <td>0.0%</td> </tr> </tbody> </table>	Cluster	Critical	Recommended	Not Needed	NONRESPONSE	BM	26.7%	66.7%	6.7%	0.0%	Finance	35.3%	58.8%	5.9%	0.0%	Marketing	45.5%	36.4%	18.2%	0.0%
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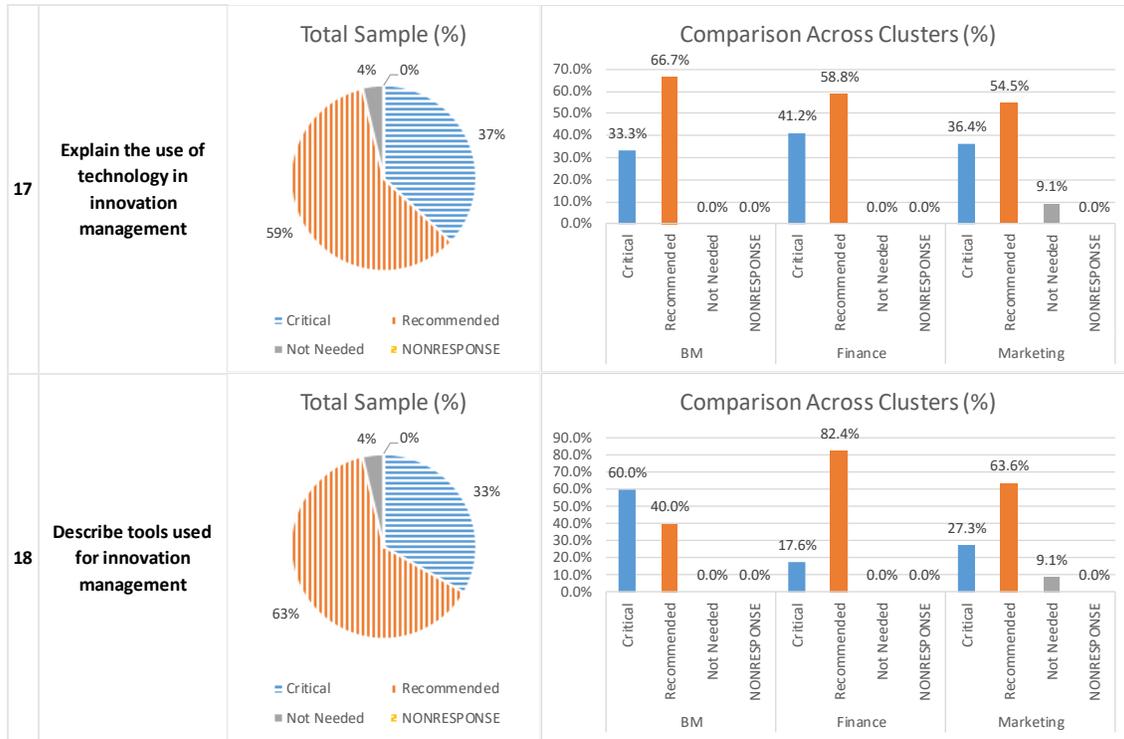
Innovation Management—All Clusters (cont'd)



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Customer Experience Management—All Clusters

<p>19</p> <p>Explain the nature of customer experience management</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>	<p>Comparison Across Clusters (%)</p> <table border="1"> <thead> <tr> <th>Cluster</th> <th>Critical (%)</th> <th>Recommended (%)</th> <th>Not Needed (%)</th> <th>NONRESPONSE (%)</th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>33.3%</td> <td>60.0%</td> <td>6.7%</td> <td>0.0%</td> </tr> <tr> <td>Finance</td> <td>64.7%</td> <td>35.3%</td> <td>0.0%</td> <td>0.0%</td> </tr> <tr> <td>Marketing</td> <td>63.6%</td> <td>36.4%</td> <td>0.0%</td> <td>0.0%</td> </tr> </tbody> </table>	Cluster	Critical (%)	Recommended (%)	Not Needed (%)	NONRESPONSE (%)	BM	33.3%	60.0%	6.7%	0.0%	Finance	64.7%	35.3%	0.0%	0.0%	Marketing	63.6%	36.4%	0.0%	0.0%
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<p>20</p> <p>Discuss customer experience models (e.g., Kano, Systems Logic Model, Total Experience Design, etc.)</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>	<p>Comparison Across Clusters (%)</p> <table border="1"> <thead> <tr> <th>Cluster</th> <th>Critical (%)</th> <th>Recommended (%)</th> <th>Not Needed (%)</th> <th>NONRESPONSE (%)</th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>46.7%</td> <td>46.7%</td> <td>6.7%</td> <td>0.0%</td> </tr> <tr> <td>Finance</td> <td>11.8%</td> <td>52.9%</td> <td>29.4%</td> <td>5.9%</td> </tr> <tr> <td>Marketing</td> <td>22.7%</td> <td>54.5%</td> <td>22.7%</td> <td>0.0%</td> </tr> </tbody> </table>	Cluster	Critical (%)	Recommended (%)	Not Needed (%)	NONRESPONSE (%)	BM	46.7%	46.7%	6.7%	0.0%	Finance	11.8%	52.9%	29.4%	5.9%	Marketing	22.7%	54.5%	22.7%	0.0%
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<p>21</p> <p>Describe ethical considerations in customer experience management</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>	<p>Comparison Across Clusters (%)</p> <table border="1"> <thead> <tr> <th>Cluster</th> <th>Critical (%)</th> <th>Recommended (%)</th> <th>Not Needed (%)</th> <th>NONRESPONSE (%)</th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>53.3%</td> <td>40.0%</td> <td>6.7%</td> <td>0.0%</td> </tr> <tr> <td>Finance</td> <td>58.8%</td> <td>35.3%</td> <td>5.9%</td> <td>0.0%</td> </tr> <tr> <td>Marketing</td> <td>50.0%</td> <td>40.9%</td> <td>9.1%</td> <td>0.0%</td> </tr> </tbody> </table>	Cluster	Critical (%)	Recommended (%)	Not Needed (%)	NONRESPONSE (%)	BM	53.3%	40.0%	6.7%	0.0%	Finance	58.8%	35.3%	5.9%	0.0%	Marketing	50.0%	40.9%	9.1%	0.0%
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Pathways Project Focus Groups

Customer Experience Management—All Clusters (cont'd)

<p>23</p> <p>Describe the use of technology in customer experience management</p>	<p>Total Sample (%)</p> <p>46% 2% 0% 52%</p> <p>— Critical — Recommended — Not Needed — NONRESPONSE</p>	<p>Comparison Across Clusters (%)</p> <p>70.0% 60.0% 50.0% 40.0% 30.0% 20.0% 10.0% 0.0%</p> <p>60.0% 33.3% 6.7% 0.0% 52.9% 47.1% 0.0% 0.0% 45.5% 54.5% 0.0% 0.0%</p> <p>Critical Recommended Not Needed NONRESPONSE Critical Recommended Not Needed NONRESPONSE Critical Recommended Not Needed NONRESPONSE</p> <p>BM Finance Marketing</p>
<p>24</p> <p>Define overarching ideas that represent the brand</p>	<p>Total Sample (%)</p> <p>39% 2% 0% 59%</p> <p>— Critical — Recommended — Not Needed — NONRESPONSE</p>	<p>Comparison Across Clusters (%)</p> <p>80.0% 70.0% 60.0% 50.0% 40.0% 30.0% 20.0% 10.0% 0.0%</p> <p>53.3% 46.7% 0.0% 0.0% 52.9% 41.2% 5.9% 0.0% 68.2% 31.8% 0.0% 0.0%</p> <p>Critical Recommended Not Needed NONRESPONSE Critical Recommended Not Needed NONRESPONSE Critical Recommended Not Needed NONRESPONSE</p> <p>BM Finance Marketing</p>
<p>25</p> <p>Explain the nature of customer experience mapping (e.g., factors to consider—context, factors mattering most, models of customer journey mapping, etc.)</p>	<p>Total Sample (%)</p> <p>54% 4% 0% 42%</p> <p>— Critical — Recommended — Not Needed — NONRESPONSE</p>	<p>Comparison Across Clusters (%)</p> <p>70.0% 60.0% 50.0% 40.0% 30.0% 20.0% 10.0% 0.0%</p> <p>40.0% 60.0% 0.0% 0.0% 47.1% 47.1% 5.9% 0.0% 40.9% 54.5% 4.5% 0.0%</p> <p>Critical Recommended Not Needed NONRESPONSE Critical Recommended Not Needed NONRESPONSE Critical Recommended Not Needed NONRESPONSE</p> <p>BM Finance Marketing</p>
<p>26</p> <p>Identify customer journeys to understand how customers engage with brand on digital and in physical channels</p>	<p>Total Sample (%)</p> <p>37% 7% 0% 56%</p> <p>— Critical — Recommended — Not Needed — NONRESPONSE</p>	<p>Comparison Across Clusters (%)</p> <p>80.0% 70.0% 60.0% 50.0% 40.0% 30.0% 20.0% 10.0% 0.0%</p> <p>53.3% 40.0% 6.7% 0.0% 35.3% 47.1% 17.6% 0.0% 72.7% 27.3% 0.0% 0.0%</p> <p>Critical Recommended Not Needed NONRESPONSE Critical Recommended Not Needed NONRESPONSE Critical Recommended Not Needed NONRESPONSE</p> <p>BM Finance Marketing</p>

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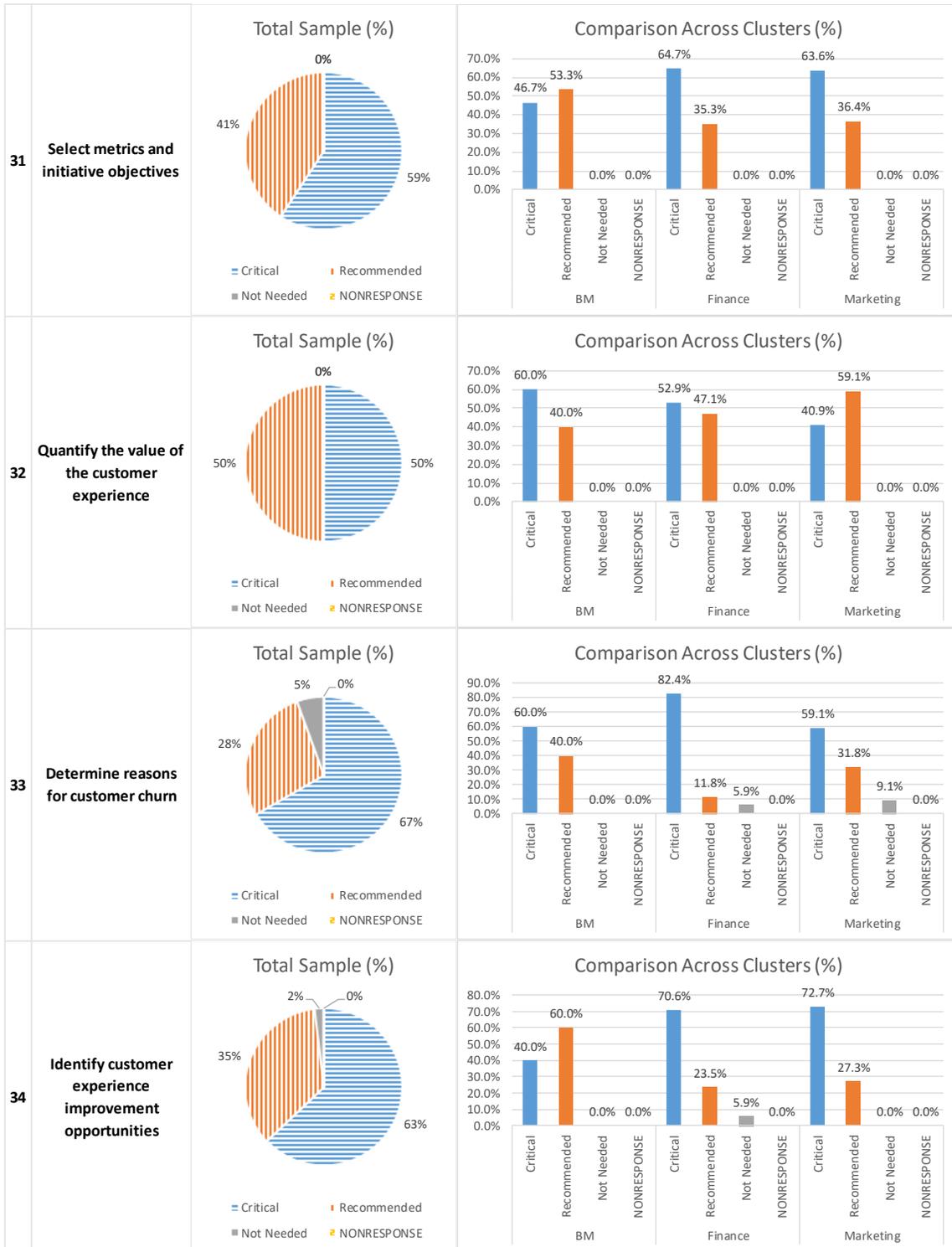
Customer Experience Management—All Clusters (cont'd)

<p>27</p> <p>Apply behavioral psychology principles of sequence, segments, and control to improve customer-experience journey</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>	<p>Comparison Across Clusters (%)</p> <table border="1"> <thead> <tr> <th>Cluster</th> <th>Critical (%)</th> <th>Recommended (%)</th> <th>Not Needed (%)</th> <th>NONRESPONSE (%)</th> </tr> </thead> <tbody> <tr> <td>BM</td> <td>33.3%</td> <td>53.3%</td> <td>13.3%</td> <td>0.0%</td> </tr> <tr> <td>Finance</td> <td>23.5%</td> <td>52.9%</td> <td>23.5%</td> <td>0.0%</td> </tr> <tr> <td>Marketing</td> <td>31.8%</td> <td>59.1%</td> <td>9.1%</td> <td>0.0%</td> </tr> </tbody> </table>	Cluster	Critical (%)	Recommended (%)	Not Needed (%)	NONRESPONSE (%)	BM	33.3%	53.3%	13.3%	0.0%	Finance	23.5%	52.9%	23.5%	0.0%	Marketing	31.8%	59.1%	9.1%	0.0%
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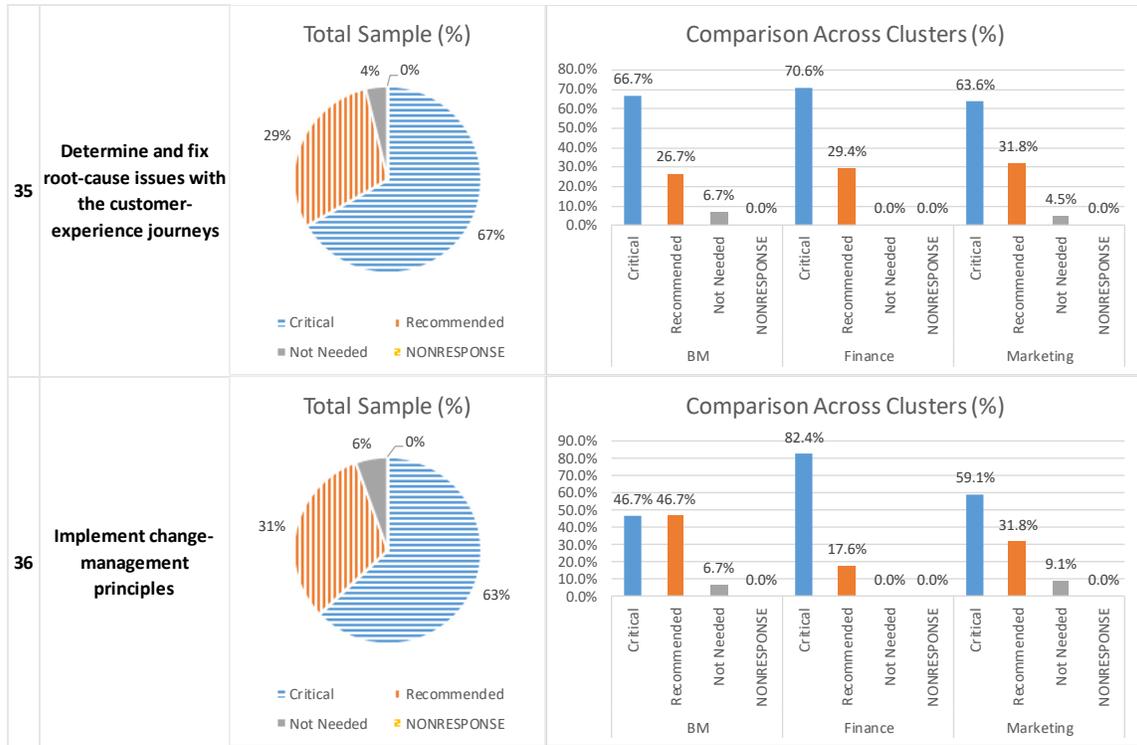
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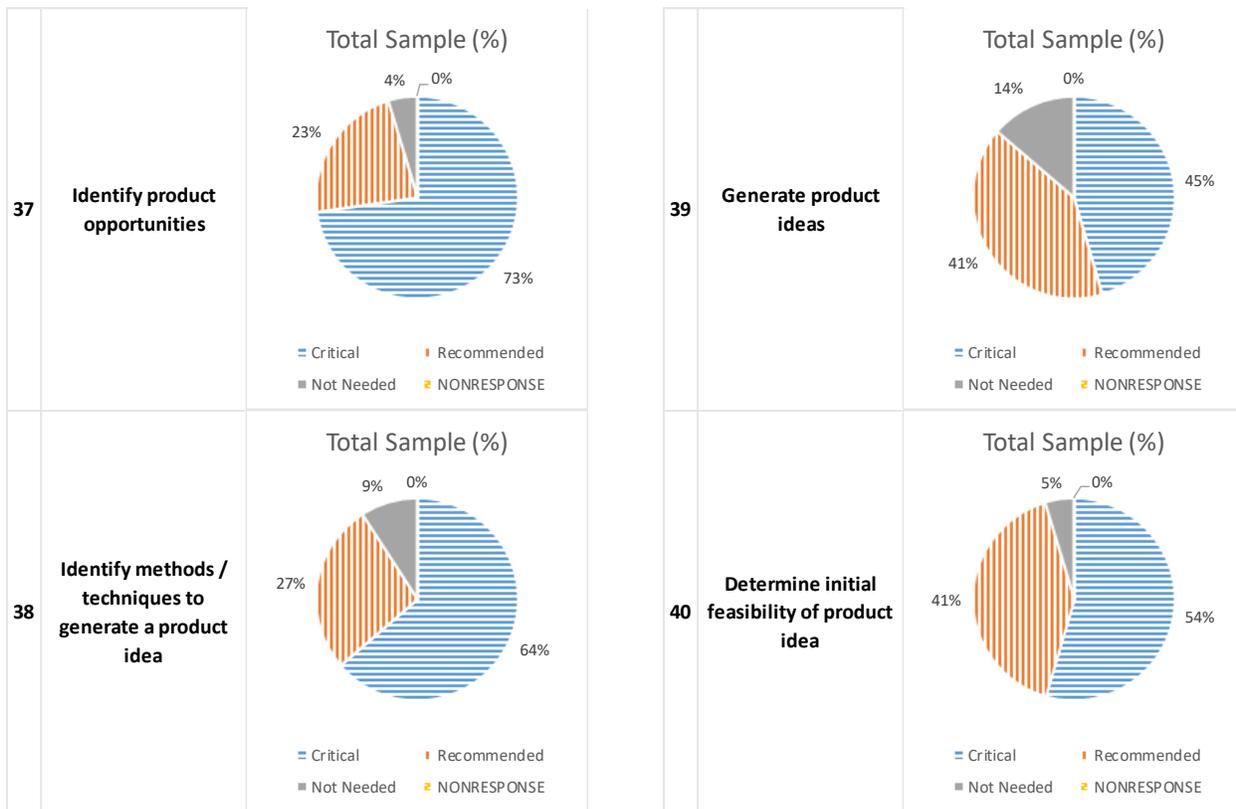
Proposed Innovation Management and Branding Standards for Marketing Cluster Core

Introduction

The following set of performance indicators were evaluated only by **marketing cluster** participants.

Sample size: 22

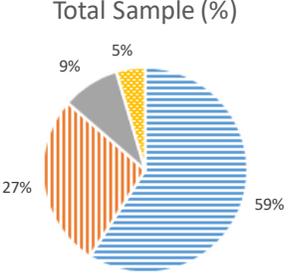
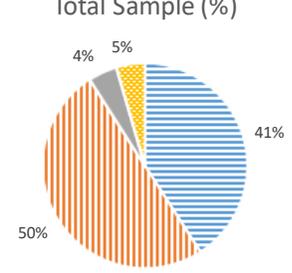
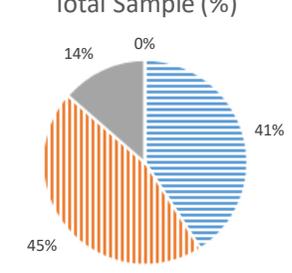
Innovation Management—Marketing Cluster Only



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Pathways Project Focus Groups

Innovation Management—Marketing Cluster Only (cont'd)

41	Adjust idea to create functional product	<p>Total Sample (%)</p>  <p>Legend: Critical (blue stripes), Recommended (orange stripes), Not Needed (grey), NONRESPONSE (yellow dots)</p>
42	Identify champion to push ideas through to fruition	<p>Total Sample (%)</p>  <p>Legend: Critical (blue stripes), Recommended (orange stripes), Not Needed (grey), NONRESPONSE (yellow dots)</p>
43	Create processes for ongoing opportunity recognition	<p>Total Sample (%)</p>  <p>Legend: Critical (blue stripes), Recommended (orange stripes), Not Needed (grey), NONRESPONSE (yellow dots)</p>

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Branding—Marketing Cluster Only

<p>44 Explain the nature of branding</p>	<p>Total Sample (%)</p> <p>0% 100%</p> <p>■ Critical ■ Recommended ■ Not Needed ■ NONRESPONSE</p>	<p>48 Identify customer touch points</p>	<p>Total Sample (%)</p> <p>0% 27% 73%</p> <p>■ Critical ■ Recommended ■ Not Needed ■ NONRESPONSE</p>
<p>45 Describe legal considerations with branding</p>	<p>Total Sample (%)</p> <p>9% 0% 36% 55%</p> <p>■ Critical ■ Recommended ■ Not Needed ■ NONRESPONSE</p>	<p>49 Develop strategies to position corporate brands</p>	<p>Total Sample (%)</p> <p>0% 32% 68%</p> <p>■ Critical ■ Recommended ■ Not Needed ■ NONRESPONSE</p>
<p>46 Explain the nature of corporate branding</p>	<p>Total Sample (%)</p> <p>0% 23% 77%</p> <p>■ Critical ■ Recommended ■ Not Needed ■ NONRESPONSE</p>	<p>50 Build corporate brands</p>	<p>Total Sample (%)</p> <p>0% 5% 27% 68%</p> <p>■ Critical ■ Recommended ■ Not Needed ■ NONRESPONSE</p>
<p>47 Describe factors used by businesses to position corporate brands</p>	<p>Total Sample (%)</p> <p>0% 18% 82%</p> <p>■ Critical ■ Recommended ■ Not Needed ■ NONRESPONSE</p>	<p>51 Describe factors used by marketers to position products/services</p>	<p>Total Sample (%)</p> <p>0% 32% 68%</p> <p>■ Critical ■ Recommended ■ Not Needed ■ NONRESPONSE</p>

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Pathways Project Focus Groups

Branding—Marketing Cluster Only (cont'd)

52	<p>Explain the nature of product/service branding</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>
53	<p>Describe the role of customer voice in branding</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>
54	<p>Explain the role of customer service in positioning/image</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>
55	<p>Identify company's unique selling proposition</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>
56	<p>Develop strategies to position products/services</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>
57	<p>Build product / service brand</p>	<p>Total Sample (%)</p> <p>Legend: Critical (blue), Recommended (orange), Not Needed (grey), NONRESPONSE (yellow)</p>

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Pathways Project Focus Groups

Credentialing and Certification Details

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Business Management--GM	Bachelor's of Science (BS) Bus. Admin	X	X		Before employment and First 1-2 years of employment	No
Business Management--OM	Bachelor's Degree	X			Before employment	Help pay for degree through stipend. (or partial)
Business Management--HR	Certified Professional in Learning and Performance (CPLP) and Associate Professional in Talent Development (APTD)	X			No defined timeframe	No
Business Management--GM	Master's Degree	X			Before advancement to next level	Pay for Schooling and books
Business Management--OM	Mine, safety, health assoc. (MSHA) Training (new miner cert) (24hrs)	X			Other	Paid training on site
Business Management--GM	Plant Manager (2 Year Degree)	X			No defined timeframe	Pay for Schooling and books
Business Management--AS	Project Management	X			Before employment	No
Business Management--OM	Lean Six Sigma		X	X	Before advancement to next level	Work training in course of job of separate class
Business Management--GM/AS	Certified Association Executive (CAE)		X		Before advancement to next level	Yes
Business Management--GM	Certified Fundraising Professional (CFRE)		X		Before employment and First 1-2 years of employment	No
Business Management--GM	Certified Hotel Management (CHM)		X		No defined timeframe	No

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Pathways Project Focus Groups

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Business Management--GM/OM/BIM	Engineering Degree		X		NO STAGE PROVIDED	Time away from work
Business Management--HR	Human Resources Management (HRM)		X		Before advancement to next level	Time and tuition reimbursement
Business Management--OM	Master's		X		No defined timeframe	Same as above
Business Management--AS	Microsoft Office Skills/Keyboarding Skills		X		First 1-2 years of employment and Before advancement to next level	No
Business Management--GM/OM/BIM	Office 360		X		NO STAGE PROVIDED	Time away from work
Business Management--GM/OM/BIM	Sciences		X		NO STAGE PROVIDED	Time away from work
Business Management--HR	Senior Professional in Human Resources Management (SHRM)- Certified Professional (CP) and Professional in Human Resources (PHR)		X		Before advancement to next level	Pay for training and testing (for HR generalists)
Business Management--HR	Senior Professional in Human Resources Management (SHRM)- Senior Certified Professional (SCP), Senior Professional in Human Resources (SPHR), and Global Professional in Human Resources (GPHR)		X		Before advancement to next level	No

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Pathways Project Focus Groups

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Business Management--GM/OM/BIM	Spreadsheets		X		NO STAGE PROVIDED	Time away from work
Business Management--HR	401K Employee Retirement Income Security Act (ERISA) Administrator			X	No defined timeframe	No
Business Management--OM	Cardiopulmonary resuscitation (CPR)			X	NO STAGE PROVIDED	Paid training and cert. fee
Business Management--HR	Cert in compensation and rewards design			X	No defined timeframe	No
Business Management--GM	Certificate Revenue Management (CRM)			X	First 1-2 years of employment	No
Business Management--HR	Certified Facilitator/Instructor			X	First 1-2 years of employment	No
Business Management--GM/AS	Certified Meeting Planner (CMP)			X	No defined timeframe	Yes
Business Management--GM/AS	Institution of Organization Management (IOM)			X	Before advancement to next level	Yes
Business Management--OM	Lean/Quality			X	No defined timeframe	Time away, course/testing fees
Business Management--GM	MBA Hotel Management			X	No defined timeframe	No
Business Management--OM	Project Management Professional (PMP)			X	No defined timeframe	Time away, course/testing fees
Business Management--HR	Six Sigma (Green Belt, Yellow Belt, Black Belt)			X	No defined timeframe	No

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Pathways Project Focus Groups

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Business Management--GM/OM/BIM	Many roles in IT require experience or certificates specific to particular applications (i.e. Onbase, Microsoft, Service Now, Tibco, SQL, Oracle, Java, .NET, Google, OP5, IBM, etc.)				NO STAGE PROVIDED	Advancement through career pathways
Business Management--AS	Professional Development				Before advancement to next level	Continuing education courses offered
Finance--AC/CF/SI	Bachelor's Degree	X	X		Before employment, First 1-2 years of employment, and Before advancement to next level	Tuition reimbursement, pay diff., advancement, study time
Finance--BS	Loan Officer - Analysis Credit Certification	X	X		First 1-2 years of employment	Employer sponsored
Finance--AC/CF/SI	Associates degree	X			Before employment	Tuition reimbursement, study time, advancement
Finance--Wealth	Bachelor's Degree	X			Before employment	No
Finance--AC/CF	Business Administration (BA)	X			Before employment and Before advancement to next level	If start at entry level. Tuition reimbursement is available
Finance--BS	Certified Public Accountant (CPA)	X			Before advancement to next level	Time away to study and reimbursement
Finance--AC	Certified Public Accountant (CPA) or Certified Management Accountant (CMA)	X			Before employment	% \$ Reimbursements

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Pathways Project Focus Groups

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Finance--SI	Chartered Financial Analyst (CFA)	X			First 1-2 years of employment and Before advancement to next level	Subsidization of fees and training materials
Finance--BS	Commercial Lender - Commercial lending school	X			First 1-2 years of employment	Employer sponsored
Finance--SI	Financial Industry Regulatory Authority (FINRA) Series 99, 7, 66	X			First 1-2 years of employment	Pay for books and class, paid time off to study. Possible promotion.
Finance--CF	Master of Business Administration (MBA)	X			No defined timeframe	Partial reimbursement
Finance--SI	Series 7, 65 Registered Investment Adviser (RIA)	X			Before employment	Sponsorship; education materials (self-study), Classwork; Available at a reduced rate
Finance--BS	Accounting manager- CUE Financial Manager		X		Before advancement to next level	Employer sponsored
Finance--IN	Associate in Risk Management (ARM)		X		First 1-2 years of employment and Before advancement to next level	Tuition reimbursement
Finance--IN	Associate in Risk Management-Enterprise Risk Management (ERM) (ARM-E)		X		First 1-2 years of employment and Before advancement to next level	Tuition reimbursement
Finance--IN	Bachelor's Degree		X		First 1-2 years of employment and Before advancement to next level	Tuition reimbursement
Finance--BS	Branch Manager, Certified Financial Counselor		X		First 1-2 years of employment	Employer sponsored

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Pathways Project Focus Groups

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Finance--AC/IN	Certification in Risk Management Assurance (CRMA)		X		Other	No
Finance--AC/IN	Certified Fraud Examiner (CFE)		X		No defined timeframe	No
Finance--AC/IN	Certified Information Systems Auditor (CISA)		X		No defined timeframe	No
Finance--AC/CF	Certified Information Systems Auditor (CISA)		X		Before advancement to next level	Pay for test prep and test.
Finance--AC/CF	Certified Information Systems Security Professional (CISSP)		X		Before advancement to next level	Test prep and test paid for
Finance--AC/IN	Certified Internal Auditor (CIA)		X		No defined timeframe	No
Finance--AC/CF	Certified Internal Auditor (CIA)		X		Before advancement to next level	Test prep and test paid for
Finance--SI	Certified Management Accountant (CMA)		X		Before advancement to next level	Yes
Finance--AC/IN	Certified Professional Coder (CPC)		X		No defined timeframe	No
Finance--AC/IN	Certified Public Accountant (CPA)		X		Other	Pay differential
Finance--AC/CF	Certified Public Accountant (CPA)		X		Before advancement to next level	Test prep and test paid for
Finance--SI	Certified Public Accountant (CPA)		X		Before advancement to next level	Yes
Finance--AC/CF/SI	Certified Public Accountant (CPA)		X		Before advancement to next level	Tuition reimbursement, pay diff., advancement, study time

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Pathways Project Focus Groups

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Finance--SI	Certified Treasury Professional (CTP)		X		Before advancement to next level	Yes
Finance--SI	Chartered Financial Analyst (CFA)		X		Before advancement to next level	Yes
Finance--AC/CF/SI	Chartered Financial Analyst (CFA)		X		Before advancement to next level	Tuition reimbursement, pay diff., advancement, study time
Finance--IN	Chartered Property Casualty Underwriter (CPCU)		X		First 1-2 years of employment and Before advancement to next level	Tuition reimbursement
Finance--SI	Master of Business Administration (MBA)		X		NO STAGE PROVIDED	Partial reimbursement
Finance--IN	Master of Business Administration (MBA)		X		First 1-2 years of employment and Before advancement to next level	Tuition reimbursement
Finance--AC/CF/SI	Master of Business Administration (MBA)		X		Before advancement to next level	Tuition reimbursement, pay diff., advancement, study time
Finance--BS	Master of Business Administration (MBA)		X		No defined timeframe	Pays for a portion of coursework
Finance--Wealth	Master of Business Administration (MBA)		X		No defined timeframe	No
Finance--BS	Microsoft		X		NO STAGE PROVIDED	No
Finance--BS	Project Management Professional (PMP)		X		Before employment, First 1-2 years of employment, and Before advancement to next level	No
Finance--BS	Six Sigma		X		First 1-2 years of employment and Before advancement to next level	Certification-training

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Pathways Project Focus Groups

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Finance--BS	Toastmasters		X		NO STAGE PROVIDED	Builds confidence in public speaking and leaders progress in careers
Finance--	Wisconsin banking school or American banking school		X		Before advancement to next level	100% covered
Finance--AC/CF	Certified Management Accountant (CMA)			X	No defined timeframe	No
Finance--AC/CF	Certified Public Accountant (CPA)			X	No defined timeframe	No
Finance--	Management Certificates			X	Before advancement to next level	Yes
Finance--AC/CF	Master of Business Administration (MBA)			X	No defined timeframe	Continuing education support/tuition reimbursement
Finance--AC	MS Excel Certified			X	No defined timeframe	% \$ Reimbursements
Finance--BS	Certified Financial Planner (CFP)-Trust and Investments				No defined timeframe	Pays for coursework and testing to receive certification
Finance--Wealth	Certified Financial Planner (CFP)				Before employment	Yes
Finance--BS	Certified Treasury Professional (CTP)-Treasury Management				No defined timeframe	Pays for coursework and testing to receive certification
Finance--Wealth	Certified Wealth Advisor				NO STAGE PROVIDED	No
Finance--Wealth	Chartered Financial Analyst				NO STAGE PROVIDED	No
Finance--SI	Chartered Alternative Investment Analyst (CAIA)				NO STAGE PROVIDED	Full subsidization of fees and training materials

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Pathways Project Focus Groups

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Finance--AC	Institute of Internal Auditors (IIA)				No defined timeframe	% \$ Reimbursements
Finance--BS	Chartered Financial Analyst (CFA)-Trust and Investments				No defined timeframe	Pays for coursework and testing to receive certification
Marketing--MC	Bachelor's Degree	X	X		Before employment	No
Marketing--MC	Microsoft Office	X	X		Before employment	No
Marketing--MC	4-year degree for marketing coord. — 7 UP Marketing	X			Before employment	No
Marketing--MM	Adobe Suite	X			Before employment	Provide support if needed and advanced training
Marketing--MC	Adobe Suite	X			Before employment	No
Marketing--MC	Associates degree	X			Before employment	No
Marketing--MC	Bachelor of the Arts (BA)	X			Before employment, First 1-2 years of employment, and Before advancement to next level	Need to have bachelor's to enter field but to move up, more education is important
Marketing--MC/PS	Bachelors degree	X			Before employment	Internships that funnel into career paths
Marketing--MC	Bachelor's Degree	X			Before employment	No
Marketing--MC/MM/PS	Bachelor's Degree	X			Before employment	No
Marketing--MC/MM	Bachelor's Degree or Associate's Degree	X			Before employment	Yes
Marketing--MM/MR	Brand Storytelling	X			First 1-2 years of employment	No

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Pathways Project Focus Groups

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Marketing--MC	Certificate or 2-yr degree, video	X			Before employment	No
Marketing--MM/MG	College degree	X			Before employment	No
Marketing--MM/MR	Content Strategy	X			First 1-2 years of employment	No
Marketing--MC/MM	Content Track; Journalism or English Degree	X			Before employment	Yes
Marketing--MM	Demonstrates expertise in use of Office Suite	X			Before employment	Advanced training to add to what employee brings to table
Marketing--MC/MM	Designs (certified Adobe Creative Suite)	X			Before employment	Yes
Marketing--MM/MR	Digital and Social Media Marketing	X			Before employment	No
Marketing--	Management	X			Before employment	No
Marketing--PS	Marketing	X			First 1-2 years of employment	Job support, education
Marketing--MC/MM	Marketing bachelor's or communications bachelors	X			Before employment	No
Marketing--MC	Master of Business Administration (MBA) for Chief Marketing Officer (CMO)	X			Before employment and Before advancement to next level	No
Marketing--MC/MM	Software (Microsoft Office, Adobe Suite)	X			Before employment and First 1-2 years of employment	Tuition reimbursement
Marketing--MM	Technical degree	X			Before employment	No
Marketing--MM/MR	Video Production and Distribution	X			Before employment	No

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Pathways Project Focus Groups

Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Marketing--MC	Master of Arts (MA)	X			Before employment, First 1-2 years of employment, and Before advancement to next level	Need to have bachelor's to enter field but to move up, more education is important
Marketing--MC	Master of Business Administration (MBA)	X			Before employment, First 1-2 years of employment, and Before advancement to next level	Need to have bachelor's to enter field but to move up, more education is important
Marketing--MC	Analytics training (Google)		X		Before advancement to next level	Tuition reimbursement
Marketing--MC/MM	Associates in business or marketing degree		X		Before advancement to next level	Tuition reimbursement
Marketing--MM	Bachelor of Science (BS)		X		Before employment	No
Marketing--MC	Bachelor of the Arts (BA) or Bachelor of Science (BS)		X		Before employment	No
Marketing--MM	Bachelors degree in marketing or communication		X		Before advancement to next level	No
Marketing--	Communications		X		First 1-2 years of employment	No
Marketing--MM/MR/PS	CTS (Certified Technology Specialist)		X		First 1-2 years of employment	Pay
Marketing--MC	Digital Marketing and Social Media		X		First 1-2 years of employment	So much digital work is done - tech training important. Tuition reimbursement
Marketing--MM/PS	Digital: Leadership Development VWM		X		Before advancement to next level	Yes

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Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Marketing--MC/MM	Marketing Technology Certification (HootSuite, HubSpot, Salesforce, MS Dynamics, etc.)		X		Before advancement to next level	Most organizations will provide financial support and study time, if needed.
Marketing--MC/MM/MG	Master of Business Administration (MBA)		X		No defined timeframe	No
Marketing--MC/PS	Master of Business Administration (MBA) or Master of Arts (MA)		X		No defined timeframe	Tuition reimbursement
Marketing--MC/MM	Master of Business Administration (MBA) or Org. Dev. Masters		X		Before advancement to next level	Tuition reimbursement and time away
Marketing--MC/MM/MG	Negotiation Skills		X		No defined timeframe	No
Marketing--MC/PS	Project Management Professional (PMP) or proposal manager certification		X		Before advancement to next level	Tuition reimbursement for certification exams
Marketing--PS	Sales degree		X		First 1-2 years of employment	Pay college debt, on the job training
Marketing--MC/MM	Certificates or certifications from American Marketing Association (AMA)			X	No defined timeframe	Some organizations may pay for certification for current employees as part of their professional development
Marketing--MC/MM/MG	Google Adwords/Pay-Per-Click (PPC) Certifications			X	No defined timeframe	No

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Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Marketing--MC/MM	Google analytics certification			X	No defined timeframe	No
Marketing--MC	Leadership Training			X	No defined timeframe	Leadership sheets help facilitate buy-in for marketing initiative. Tuition reimbursement
Marketing--MC/MM	Professional certification like APR, ABC, AMA			X	Before advancement to next level	Exam reimbursement and license renewal
Marketing--MC/MM	Social media certificate (available at some tech schools)			X	NO STAGE PROVIDED	No
Marketing--MC/PS	Social media or digital storytelling certificate			X	NO STAGE PROVIDED	No
Marketing--MC/MM	Tech Certificate, Graphic Arts, Web design			X	NO STAGE PROVIDED	No
Marketing--MC	Accreditation in Public Relations (APR)				Before advancement to next level	No
Marketing--MM/PS	Bachelor of the Arts (BA)				NO STAGE PROVIDED	No
Marketing--MC/MM	Certified Scrummaster				NO STAGE PROVIDED	No
Marketing--PS	Data analyst				No defined timeframe	On job training
Marketing--MM/MG	Leadership Training				Before advancement to next level	Bring in trainers
Marketing--MC/MM	Master of Business Administration (MBA)				NO STAGE PROVIDED	No
Marketing--MC	Master of Business Administration (MBA)				Before advancement to next level and No defined timeframe	No

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Cluster/Pathway	Certification/Credential	Required	Recommended for Advancement	Nice to Have	What stage	Provide Support?
Marketing-- MC/MM	Project Management Institute (PMI) Project Mgt Certifications				NO STAGE PROVIDED	No
Marketing--	Selling				NO STAGE PROVIDED	No
Marketing-- MC/MM	Bachelors in business or marketing degree		X		Before advancement to next level	Tuition reimbursement

Abbreviation Key:

Cluster	Pathway	Abbrev.
Business Management	Administrative Services	AS
Business Management	Business Information Management	BIM
Business Management	General Management	GM
Business Management	Human Resources Management	HR
Business Management	Operations Management	OM
Finance	Accounting	AC
Finance	Banking Services	BS
Finance	Corporate Finance	CF
Finance	Insurance	IN
Finance	Securities and Investments	SI
Marketing	Marketing Communications	MC
Marketing	Marketing Management	MM
Marketing	Marketing Research	MR
Marketing	Merchandising	MG
Marketing	Professional Selling	PS

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