Job Applicants as the New Customer: Strategies for Successful Recruiting in Midwest Manufacturers

Sarah Schake[1], Jana Craft[2]*, Ph.D

[1]*Business Administration, Winona State University*

[2]*Associate Professor, Chair, Business Administration, Winona State University, USA*

*Corresponding Author: *Jana Craft, Associate Professor, Chair, Business Administration, Winona State University, USA*

Abstract: *The manufacturing industry is currently facing challenges on several fronts—of the most vital is the recruiting of new employees to fill vacancies. The purpose of this article is to understand current recruiting challenges facing the manufacturing industry and offer strategic solutions to best fulfill employer needs. Face to face interviews and electronic surveys were used to collect the most up-to-date information on recruiting challenges, tools, and resources in a mid-sized town in the Upper Midwest. Main findings focus on the need for varied recruiting strategies at different stages of the recruiting process; what has worked the past that is not working now; and specific resources used by employers that are producing successful results. A tension was found between published best-practices in recruiting for manufacturers and actual, on-the-ground, practical solutions--an important and valuable outcome of this research.*

Keywords: *Recruiting, Manufacturing, Midwest, Challenges, Qualitative Research*

1. INTRODUCTION

For various reasons, manufactures in the Upper Midwest continue to experience challenges in recruiting people to fill skilled-labor positions. Southeastern Minnesota has a strong and robust manufacturing industry. Manufacturing represents15.9 percent of total employment in the region, which makes it the second largest industry in the region and the second largest concentration of manufacturing employment of the six regions in the state (Schultz, 2017). The economy of this region relies on the success of its manufacturing firms. If these firms cannot fill the positions, they need to be productive and support growth the economy of the region will suffer. Manufacturers are attempting to recruit skilled workers but are not experiencing success in doing so. Strategies have been evolving as recruiting efforts shift to focus on the millennial and Generation Z workforce, but these strategies need to continually evolve if recruiting challenges are to be solved. We examine the manufacturing industry and recruiting challenges from a nationwide, state wide and localized focus area.

1.1. The U.S. Manufacturing Industry

The U. S. manufacturing industry is vitally important to the economic future of the country, specifically, and the Midwest, in general. The manufacturing industry is made up of organizations involved in the production and processing of raw materials to either create new commodities or add value to existing materials. According to the National Association of Manufacturers (n.d.), in the first quarter of 2018, manufacturers contributed $2.33 trillion to the U.S. economy. In comparison, the retail industry generated $1.14 trillion to the economy last year (Amadeo, 2018). Manufacturers uniquely contribute to the economy in that it has the highest multiplier effect of any economic sector in the U.S.--with every $1.00 spent in the industry adding another $1.89 to the economy (National Association of Manufacturers, n.d.).

Manufacturers produce more than just an economic contribution--they give the world airplanes to travel beyond one's imagination; sports banners to root for the home team; medical devices that save lives; canoes that allow exploration of hometown lakes and rivers; and so many other products that consumers do not know they need or want. Even with massive economic benefits and societal contributions, impressions of the manufacturing industry seem to be held in generations past. Manufacturing today is much more than vocational trades and a cliché blue collar, low-wage portrayal

of the past. Nationally, more than 12.3 million people were employed in the manufacturing industry in 2016 (U.S. Bureau of Labor Statistics, 2017).

1.2. Area of Study

The geographical focus area for this research was the Upper Midwest region of the U.S. Research was conducted mainly in Winona, Minnesota, a mid-sized college town with a permanent resident population of approximately 30,000 and about 10,000 more temporary residents (college students) during the academic year. Southeast Minnesota has the second largest concentration of manufacturing employment of the six regions in the state (Schultz, 2017). Industry employment in Southeast Minnesota in 2017 was15.7 percent of regional occupation, making it the second largest industry behind health care and social assistance (Schultz, 2018). The average annual wage for manufacturing jobs in southeast Minnesota in 2018was $57,510—15.5% higher than average wages in all industries in the region at $49,779(Schultz, 2018).Fifty-eight percent of manufacturers in the Southern Initiative Region of Enterprise Minnesota's 2018 Survey of Minnesota Manufacturing Executives stated 2018 will be a year of economic expansion.

1.3. Recruiting Challenges Industry-Wide

Even with a decline in total jobs, manufacturers nationwide are struggling to fill the skilled worker gap. According to Giffi et al. (2015), between 2015 and 2025, three and a half million jobs in the manufacturing industry will be vacant, but the skills gap will result in two million positions remaining unfilled. When surveyed, 48 percent of manufacturers said that attracting and retaining a qualified workforce is one of the top two challenges their company is facing that might negatively impact future growth (Enterprise Minnesota, 2018, p. 24).These recruiting challenges have persisted because of multiple compounding issues. Not only is there a skills gap for employers created by Baby Boomer retirements and economic expansion, but there also exists a plethora of other issues: an awareness gap of vacant positions; difficulty attracting desired workers; low unemployment levels nationwide and industry wide; a negative image and perception of jobs within the industry among the younger generations; a lack of STEM (science, technology, engineering, and mathematics) skills among the workforce; and a gradual decline in the perceived value of technical education programs in today's schools. Taken together, these issues amplify the challenges of recruiting and retaining workers.

The skills gap that is so prevalent in the manufacturing industry can be simply defined as the difference in the skills a job requires and the actual skills that an employee possesses. According to the National Association of Manufacturers (n.d.), when hiring skilled and highly-skilled production positions, 80 percent of manufacturers reported they experience a moderate or severe shortage of qualified applicants. Proficiency in vacant skilled production positions are likely not developed in an average applicant's secondary education courses. Rather, applicants need to pursue an industry certification, on-the-job training, or other types of industry-specific skill development. Manufacturers looking to fill entry-level production positions also experience a skills gap. Executives identified that 70 percent of manufacturing employees are deficient in technology/computer skills, 69 percent in problem-solving skills, 67 percent in basic technical training, and 60 percent are deficient in math skills (Giffi et al., 2015, p. 6). All four of these deficient areas fall within the science, technology, engineering, and mathematics (STEM) category. STEM programs and technical programs that use STEM skills in an applied classroom setting are not adequately equipping students with the skills they need to close the existing gap.

This skills gap is heightened by what Perna (2018) defines as an awareness gap--the assumption that post-secondary education in a college setting is the only path young people can take to generate a successful life. Young people and parents are not aware of other paths to employment because they have not been shown every career possibility and path. Eighty-one percent of younger millennials and Generation Z members "believe a college education is necessary for a good career, and it is estimated that one in two of them will become university educated" (p. 18-19). Fifty percent will become university educated in comparison to only 25 percent of Generation X (Perna, 2018).By instilling in young people that a 4-year college degree is the only option that can lead to success, fulfilling careers within industries such as manufacturing are completely discounted and the gap has widened as a result. While 14 percent of hiring difficulties are caused specifically by skill mismatch, 28 percent are caused by a lack of work ethic or interest in a manufacturing career (Leibert, 2013). Together, the awareness and skill gaps intensify recruiting and hiring challenges.

The declining interest in skilled production as a career track also contributes to the problem of attracting desired workers from a low supply. According to Leibert (2013), 70 percent of hard-to-fill positions such as productions supervisors, machine tool operators, machinists, and welders, attracted less than 10 applicants. When asked about the major challenges faced during the recruitment of skilled and highly skilled workers, 79 percent of executives replied, "finding candidates who pass our screening and/or probationary period;"66 percent of executives responded "finding candidates to enter initial screening process;"63 percent replied "making position requirements appeal to qualified talent;" and 56 percent responded "offering compensation that appeals to qualified candidates" (Giffi et al., 2015, p. 13).A low supply of qualified applicants and a weak demand among potential applicants are both unfavorable conditions for human resource professionals recruiting in the manufacturing industry.

1.4. Upper Midwest Recruiting Challenges

The Upper Midwest area is facing the same recruiting challenges as the nationwide industry. When surveyed, 53% of manufacturers in the research area--Southeastern Minnesota--said that attracting and retaining a qualified workforce is one of the top two challenges their company is facing that might negatively impact future growth (Enterprise Minnesota, 2018, p. 26). The skills gap, awareness gap, difficulty attracting employees, and low unemployment levels are areas of concern to employers within the Southeastern Minnesota region. However, other concerns play a role in recruiting challenges as well. The perception among secondary and post-secondary students of the availability of successful career options in manufacturing is often lower than what is available; concerns for the presence of jobs with livable wage offerings, and lack of affordable housing and childcare availability further exacerbate regional recruiting challenges.

2. SUGGESTED RECRUITING STRATEGIES

With the multi-faceted challenges of recruiting in the manufacturing industry, strategies need to be implemented within businesses to recruit and retain a strong manufacturing workforce. For manufacturers and businesses in general, recruiting efforts have shifted to focus on Millennials and will soon shift again to Generation Z. Therefore, existing strategies will need to shift to best reach this new market of potential applicants. Recruiting strategies differ in every business, but research shows there are best practices. To overcome hiring challenges executives within the industry have taken a variety of actions. According to Leibert (2013), sixty-four percent changed advertising or recruiting methods, 40 percent increased training for new hires, 30 percent increased wage or benefits packages, and 17 percent partnered with schools to build the future pipeline of workers. Employers that implemented changes reported moderate success. However, challenges have not disappeared completely. In the age of technology and social media, face-to-face recruiting is not enough for manufacturers; they must harness the potential of virtual and online recruiting in a meaningful and strategic way for success. They must also look beyond the typical recruiting process to prepare for future needs which involves strategically examining and understanding those future needs. Rather than being reactive, employers need to be proactive in developing and refining recruiting and hiring tactics that act as talent-building processes for the company.

2.1. Face-to-Face Recruiting

Even with the advancement of technology used in the recruiting and hiring process, face-to-face recruiting strategies are still vital to the hiring success of manufacturers. Face-to-face recruiting can be understood as any occasion when an applicant is in the physical presence of a representative from the company, whether that be in an interview, networking, career fair, company visit, etc. Research suggests the best tactics for face-to-face recruiting include touring the facility and production floor during the interview process; introducing applicants to the company culture; communicating to applicants the mission and purpose of the company and the job they would have within it; and communicating the opportunities for the applicants in terms of training and growth (Conlan, 2018; Pacelli, 2017; Putre, 2016; Leibert, 2013;).

These best practices appeal to Millennials that will soon make up much of the manufacturing workforce. By touring the production floor, applicants can gain a stronger understanding of what the company is producing, responsibilities of the job, the team culture they would be placed in, and the work environment. Not only will applicants get a feel for their potential position, but the business representative will have an added chance to gauge the applicant's fit, comfort level, and excitement

for the job. A tour will also give applicants a glimpse into the company culture, which is an extremely important aspect to millennials when looking for jobs. If an applicant is not comfortable in the workspace and feels unmatched to company culture, they will likely opt out of the process. Revealing the characteristics of the company's culture by structuring interview questions around culture, the HR professional and the applicant can have a better idea of success within the company if hired.By ensuring applicants understand the culture of the company and the technical requirements of the job, they will feel more confident and excited about the position. By generating excitement, recruiters will have more success in recruiting and hiring.

Once applicants are informed about the technical and professional skills required for a position within a manufacturing company, for many Millennials, the selling point is knowing that the job will be more than merely shift work. According to Pacelli (2017), Millennials are interested in three key areas: quality of life; positive impact on society; and future growth, education, and financial worth. They want to know the "why" of a company.

By sharing the mission and values of the company, Millennials will buy-in knowing that the work they accomplish everyday has had an impact beyond the walls of the facility. Applicants will connect with the company on a more meaningful level when they know the story behind their work (Putre, 2016).Essentially, this could be as simple as structuring an interview question around how strongly they relate to the company's values. With the skills gap looming, it may be just as important to hire for fit and passion to reduce turnover and give new employees the chance to advance their technical skills within a company about which they are passionate.

2.2. Virtual and Online Recruiting

Face-to-face efforts alone are not enough to address current recruiting challenges. Manufacturers must take advantage of the tools and features of virtual and online recruiting to stay relevant with the Millennial and Generation Z workforces they are recruiting. Recommended tactics include improving the company website; growing online advertising; making it easy to apply on a mobile device; and using social media channels (Stute, Schaff, & O'Neil, 2018; Putre, 2016; Enginess, 2016; Mulvey, Esen, & Coombs, 2016).

Manufacturers often overlook the potential for using their website as a strong recruiting tool. A company website is usually constructed to best serve customers, but if HR professionals re imagine job applicants as another type of customer, they could recognize the company website provides greater possibilities for recruiting. Applicants can get a strong sense of a company's brand before entering the facility if the company website communicates compelling value propositions. According to Putre (2016), "potential candidates will spend time on your site if there's something to look at. Create compelling content through employee stories, video showing off the technology…" (para. 17).If one does not already exist, the company could add a "Careers" page to their website that shows potential candidates available career opportunities by highlighting through employee stories, video tours of the facility, and an easy link to apply for job postings. By creating a one-stop-shop for potential candidates, manufacturers will see greater recruiting success.

While many manufacturers have moved to digital to improve the efficiency of operations, some are still behind in making the jump to online recruiting. According to Trifilio (2016), 55 percent of job searches occur through internet job sites. This percentage has likely increased since 2016, as well, which indicates candidates who are looking for jobs are doing so online. With a majority of employees searching for jobs online, a mere 20 percent increase in manufacturing and resource jobs advertised online in Minnesota from 2017 to 2018 seems small in comparison (Stute, Schaff, & O'Neil, 2018).

Candidates are using mobile devices to do more than ever before. Seventy-seven percent of adults in the United States own a smart phone. Seventy-eight percent of Millennials and 73 percent of Generation Xers use mobile devices to find jobs.These statistics from 2017 are all increases from the previous year ("The Unstoppable Rise", 2017). Ensuring that the company website, job postings, and the job application process is optimized for mobile devices is necessary to prevent employers from missing out on desired talent. Enginess, a digital consulting firm that provides website design and development services, suggested some key differences between designing websites for a mobile device versus a desktop computer, including screen size, navigation, content prioritization, integration with functions, and "tapable" versus "clickable" interactions. For example, websites accessed through

mobile devices have more success with a portrait orientation, enlarged interface elements—larger call-to-action buttons and links—fewer screen taps required, vertical navigation menus, reduced word counts, unnecessary graphics, and integration of direct calling and voice control functions (Enginess, 2016). Taking these features and integrations into consideration when designing company websites will improve an applicant's ability to apply on a mobile device by increasing the convenience and satisfaction with the mobile user experience.

The typical American uses three major social media platforms (Smith & Anderson, 2018). Recruiting on social media is an effective way to reach the myriad of job seekers that are present and comfortable on various channels. Social media is not only cost-effective, but its targeting capabilities allow HR professionals to get their job postings directly in front of the right candidates. A survey conducted by the Society for Human Resource Management (SHRM) asked organizations why they used social media for recruiting. Eighty-two percent used social media to recruit passive job candidates who might not otherwise apply; 71 percent used social media to target job candidates with a very specific set of skills; and 55 percent used social media because it was less expensive than other recruiting methods (Mulvey, Esen,& Coombs, 2016). Two popular social media outlets, Facebook and LinkedIn, offer specific job advertisement services to employers. Manufacturers posting job ads on these sites can reach potential applicants who, based on their demographics and online behavioral analysis, best align with job requirements or the company and are more likely to be intrigued by the posting. Glassdoor is another social media platform focused solely on careers. In addition to job a posting site, it allows current and former employees to write reviews about current and former employers. Job seekers appreciate the transparency and can get a feel for whether they would like to work for that company. To recruit effectively, manufacturers need to focus advertising and recruiting efforts on where candidates are looking for jobs instead of relying on what has worked in the past.

2.3. Other Categories

Manufacturers must look beyond the typical recruiting process to establish strategies that are not merely either face-to-face or digital recruiting. Advertising holistic aspects of a career, writing interesting and engaging job descriptions, having an easy application process, and building a talent pipeline are all tactics that can be used to resolve recruiting challenges.HR professionals must understand that a job in manufacturing cannot merely be marketed as solely a job. Rather, careers need to be marketed as opportunities that provide money, quality of life, flexibility, growth, etc. When recruiting, benefits of the job such as training, advancement, health care, diversity, retirement plans, flexibility, and culture should be shared with candidates. According to Perna (2018), younger generations have a "work to live" mantra which makes these benefits much more important. If HR professionals do a poor job of communicating the lifestyle that a job can provide for a candidate, the candidate may quickly lose interest. A holistic approach to advertising positions includes much more than simply hours, pay, and responsibilities.

One of the first things candidates will see from accompany incorporating a holistic approach is the job description. Job descriptions and job postings should be interesting and engaging. With so many job postings from manufacturers, companies need to create a description that stands out against the others. Job descriptions should describe the skills and experience that the company requires and help candidates understand what is in it for them, whether that be advancement opportunities, interesting technology tools they can work with, or the company culture (Conlan, 2018). According to Perna (2018), it is the company's responsibility to communicate the "want-to," or why applicants would want to be employed with that company. Another take on engaging job descriptions can be found on the LinkedIn talent blog in an article by Kate Reilly. Reilly (2014) provides screen shots and highlights from what she calls three "top 1% examples" of engaging job descriptions. In brief, she highlights common themes among all three examples: jargon-free writing; simple explanation of duties; addressing the candidate in the second person vernacular; short sentences; humor or catch verbiage; and original or unique headings. As a result, the job descriptions that recruiters share with applicants should create the spark of interest that it takes for an applicant to take the next step in the recruiting process.

Once the company has the interest of an applicant, they need to keep it long enough to bring the applicant further along in the recruiting process. The application process should be easy enough for an applicant to maintain their motivation to finish, but thorough enough to collect the proper information that is needed to determine whether an interview is the appropriate next step (Conlan, 2018). If the

applicant must jump through too many hoops to complete the application, he or she will likely lose the motivation to complete. For example, many companies require job applicants to create entire profiles on their company careers site in order to apply for a position. Profile creation is often burdensome or difficult on a mobile device when applicants are asked to essentially recreate their resume with education and employer information entered in separate fields in addition to an uploaded resume. Manufacturers need to think critically about what information needs to be collected and how to determine whether to bring the applicant in for an interview and if the application process is cumbersome and time-consuming. Any information beyond that should not be included in the application process.

Recruiting also needs to be strategic in thinking about the future needs of a company. By using recruiting and hiring strategies that act as a talent-building pipeline, manufacturers can address their current employment needs and prepare for future demands. According to Giffi et al. (2015), most Americans consider manufacturing as one of the most important industries to maintain a strong national economy, but they rank manufacturing careers low as a career path for themselves. Only 37 percent of Giffi et al.'s study respondents indicated they would encourage their children to pursue a career in the manufacturing industry, but respondents with high industry familiarity were twice as likely as those with no familiarity to encourage their children to pursue a manufacturing career. Manufacturers must engage with local community members, educational institutions, government programs, and other industry employers to improve the perception of careers. By developing their workforce internally through training programs and externally through partnerships, apprenticeships, and internships with local schools and post-secondary institutions, manufacturers can work outwards to improve perception, communicate the opportunities within their businesses, and do their part in closing the skills gap. Manufacturers can also build community outreach programs and work with high schools, technical schools, and community colleges to design a curriculum that meets their skills needs. According to Leibert (2013), "strategies that combine internal training and partnerships with colleges are particularly effective because they facilitate the transition from school to work and help build the future pipeline of qualified workers" (p. 18). Manufacturers must understand the multidimensional nature of the skilled workers they desire to develop partnerships and programs that will develop a talented pipeline of individuals who are prepared to enter manufacturing careers within the industry. Without using these strategies to improve perception and build a talent pipeline, manufacturers will continue to face recruiting challenges.

3. METHOD

Representatives from 10 manufacturers voluntarily participated in a qualitative study to determine current recruiting challenges and tools used in manufacturer recruiting. Organizations represented small, mid-sized and large businesses with employee sizes from 30 to over 20,000 and length of time in business from 11 to 150 years. Industries served included food production; steel containers; promotional products; printing; winches and cranes; luxury menswear; industrial fasteners; canoes, kayaks and paddleboards; branded apparel and promotional products; and specialty camping gear. In addition to survey and interview questions, information was provided about their origins, specialty, industries served, and numbers of employees and current job openings.

Survey respondents were asked open-ended questions about recruiting challenges faced by their business; participants were free to answer in as much or as little detail as desired. The central question, as stated by Creswell (2009), explored the central phenomenon of recruiting challenges experienced by the participants. The questions started broadly but narrowed to specifics as findings were uncovered as is acceptable practice in both focus groups and interview protocol (Krueger & Casey, 2015). Questions were designed to determine the severity of challenges faced, whether the respondents felt that with proper strategic implementation the challenges faced could be solved, and to allow personal feelings about recruiting to emerge.

Face-to-face interviews were used to expand on the topics of these survey questions and responses. The methodology followed Patton's (2002) informal conversation style because the researcher was able to "stay in the setting for some time in so as to not be dependent on a single interview or opportunity" (p. 342). In addition to the survey questions, HR professionals were asked several follow up questions to better understand the recruiting strategies used in their business and success level with those strategies.

4. FINDINGS

Findings were organized by responses to interview and survey questions. Questions first addressed the severity and descriptions of recruiting challenges these manufacturers faced. Changes in recruiting efforts that have occurred and are predicted to occur were discussed to provide evidence of the need to continuously examine efforts and strategies in use. Attitudes in response to changes and the future of the recruiting process were discussed. The question route then shifted to the tools that manufacturers use to recruit and the success levels experienced with these tools. Along with the tools, manufacturers were asked to identify the content that was advertised and shared with applicants and recruits during the process, which required expansion and discussion of the content identified.

5. RECRUITING CHALLENGES

Nearly all HR managers ranked recruiting challenges as a top concern for their companies but for various reasons. Challenges ranged from applicants possessing a lack of knowledge about working for a union; low unemployment rates forcing companies to "chase" applicants; redefining the employee-as-customer experience; and finding qualified workers and upgrading machinery. Employers ranked other challenges ahead of recruiting such as increasing sales and retaining workers. In addressing recruiting challenge, employers provided a myriad of ways they are addressing the issue. One employer is working with the local technical college to build a program that better educates and trains students to enter the workforce as a highly skilled applicant. Where skilled labor is not in demand, recruiting was ranked as the third challenge behind increasing sales and retaining low-skilled employees. Several HR managers discussed increasing the starting wages to become more competitive with other manufacturers in the area. This increase greatly helped in the company's recruiting efforts as they are now fully staffed, which was indicated as a rarity. Only one manufacturer did not consider recruiting a challenge. This is because, according to the HR manager, the company is known and recognized as a top employer in the area which makes is possible for them to hire people away from their current jobs/careers. They offer a competitive starting wage with immediate paid time off and flex time. This shows the weight that a good reputation will carry and the advantage of significant wages and valuable benefits.

5.1. Changes in Recruiting

All respondents indicated changes had occurred in recruiting that shifted their focus as of late. Changes included an increase or reduction in job openings; providing meaningful work; developing the efficiency of the current workforce; a reduction in applicants with basic math skills; workforce diversification and intergenerational challenges. Fifty-six percent of survey respondents indicated that job openings within their company were expected to increase in the next five years. Challenges had shifted from a heavy recruiting and hiring period three years ago to a less critical need to fill positions currently. Changes in the manufacturing processes and technology available had allowed the current workforce to be more efficient, which reduced the physical number of production workers needed. One company is currently focused on retaining employees by providing meaningful work and developing the efficiency of the current workforce, whereas three years ago the focus was on recruiting and hiring a large volume of labor.Another manufacturer has had difficulty finding applicants with basic math skills for entry level positions.

Another company has begun to focus recruiting efforts on diversifying their workforce. Since 2015, the company has a workforce that is one-third Caucasian, one-third Hispanic, and one-third Hmong. Besides cultural diversity, intergenerational challenges exist. With the existence of up to four generations in the workforce (Baby Boomers, Generation X and Y and Millennials) and a lack of understanding of each generation, challenges are increasing. Diversification in both areas has brought both benefits of highly motivated and loyal workers and challenges of patience for different characteristics and practices.

5.2. Optimism about Future Recruiting

While 56 percent of respondents indicated that they were optimistic about their company's future recruiting efforts, the remaining 44 percent were either neutral or pessimistic.

Various reasons for optimism were cited including having strong relationships in the community; the ability to maintain current staffing levels; continuing to utilize diverse recruiting networks; and maintaining a high starting wage. External resources were mentioned as an important resource for

recruiting that led to a positive attitude toward tackling recruiting challenges. A few of the resources indicated were networking with the Society of Human Resource Management, utilizing the local Workforce Center, and advertising on Indeed and Facebook. With these diverse recruiting resources, manufacturers can reach a broader audience with their job opening announcements and other marketing campaigns with minimal effort, which saves both time and money.

It is interesting how a changing economy impacts recruitment and hiring. One HR Manager stated that she is optimistic about recruiting efforts, but her answer a year ago would have been the opposite. Changes to their recruiting strategies, mainly a recently enacted starting wage increase, helped the company to be more successful in their recruiting efforts. Finally, one HR Manager said that she had some reservations about the future of the company's recruiting challenges. She stated that with several employees nearing retirement age, employees with a strong work ethic will be retiring. Millennials entering their workforce are more interested in a work-life balance than older generations, which pose a need for different recruiting strategies.

5.3. Recruiting Tools

Survey respondents were asked about the recruiting tools currently used by their business. They were asked to select up to three tools from a list of eight that had been the most successful and least successful for their business. Respondents also had the option to add a tool that was not listed. Figure 1 summarizes their responses.
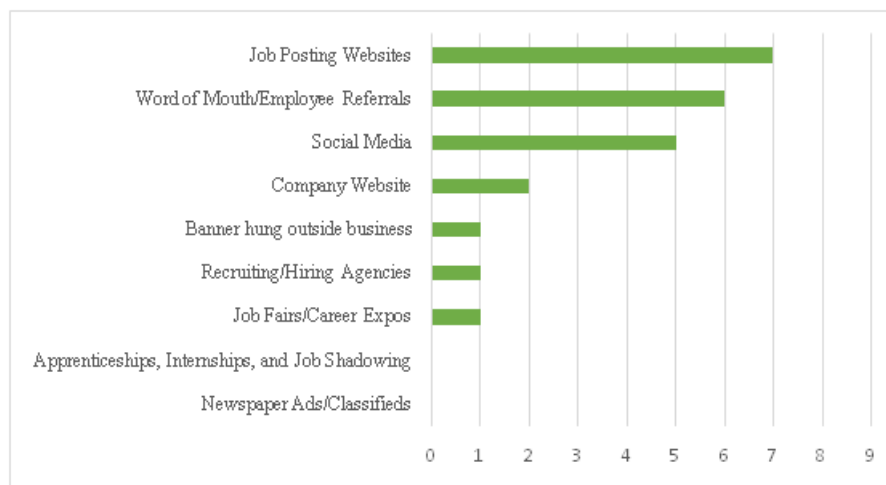

Figure1. *Which recruiting tools were the most successful?*

Employers chose tools to fit the type of open positions (skilled vs. unskilled); the level of open position (trade vs. management); the location they expected to reach (online vs. local paper and radio); the volume of applicants targeted (a scattershot approach utilizing multiple tools); and what has worked in the past.

For professional positions, several HR Managers had success with using LinkedIn, Indeed and Glassdoor. A few local manufacturers use LinkedIn as their career portal, but most post jobs for free on Indeed. Several mentioned excellent to moderate success with receiving qualified leads on Indeed. However, a large quantity of applicants results from postings on Indeed, but the pool is not always of satisfactory quality. Many supposed there are greater benefits to be obtained if an investment was made to use Indeed's premium service rather than only using the free service. A manufacturer who used Indeed, also posted jobs on their public Facebook page and ran advertisements to drive traffic there. Facebook ads were used to reach out to people that have knowledge about the industry and products they manufacture. Essentially, companies use social media advertising to reach a larger audience through electronic word-of-mouth. The most creative use of Facebook was an employer who posted job advertisements in "For Sale" groups to reach more of the local marketplace and runs employee $1000 referral contests from their public Facebook page. (Note: Only two employers mentioned employee referral programs as being a successful tool for recruiting with one briefly mentioning employees as being excellent "company advocates." Internal promotions often occur after an employee referral is hired.) Interestingly, platforms such as Monster and CareerBuilder were said to no longer provide qualified leads and desired candidates. Glassdoor is becoming more popular for

not only job postings, but also company reviews. Much like a Yelp! For companies, Glassdoor allows current and past employees to post Amazon-review-like information on what it is like to work for a company. This gives job searchers a different picture than the company's publicly facing webpage. Some had reduced their focus on newspaper job advertisements to focus more on digital promotion through the company website and job posting websites such as Indeed and Glassdoor.

Professional positions require manufacturers to actively search for the best candidate, whereas production and trade jobs require candidates to seek out the position. Companies advertising for production positions often only reach a local audience, therefore heavily utilizing a local free newspaper. The advertisement space is not necessarily less expensive, but it does reach a wide audience who might read a free paper rather than the other fee-based local paper. Radio advertisements were an important tool for one manufacturer approximately seven years ago because it was an excellent awareness and education outlet for potential applicants, but they have recently reduced those efforts because of increasing costs. Companies also used external sources such as the local Workforce Center and temporary hiring agencies to find candidates, but reasons why were not discussed. In prior years, for production and trade jobs, HR Managers had focused on word of mouth recruiting through employee referrals, improving the company website to advertise open positions, and temporary staffing (with consideration of union restrictions). In the past when companies were looking to fill several positions, many participated in job fairs.

Several companies said their company website could be better utilized for job advertisement and data analysis. One manufacturer is currently in the process of developing and implementing an applicant tracking system (ATS) that will make recruiting efforts more organized and efficient in the future with analysis capabilities built into the system. She stated that a manual process of recruiting was difficult because information is scattered, metrics cannot be easily analyzed, and time efficiency is lacking. With the employment needs that the company will be experiencing soon, the ATS will present a recruiting competitive advantage.

Finally, two manufacturers employed the scattershot approach by taking advantage of a large variety of strategies to recruit. Traditional media such as billboards, newspapers, radio advertisements, and advertisements on city transportation vehicles all helped raise awareness of company brand and job openings. Job posting sites, social media, company website, and word of mouth were other platforms that have been successful. The company was also one of the few manufacturers that still practiced an open-door policy for recruiting purposes because the company does not want to miss out on the opportunity of having a great employee walk through the door because the opportunity was not readily available. The HR Manager said they practice this strategy because "you never know when your next greatest employee will walk through the door."

5.4. Recruiting Content

HR Managers mentioned a myriad of facets they advertise when recruiting. Table 1 provides a summary of items, categorized by theme. None of the items were noted as more or less important and all were mentioned at least once, but none overwhelmingly more than others. While most elements were expected (i.e. benefits, paid time off, bonus), certain unique elements deserve expanded discussion.

Table1. *Summary of elements advertised in recruiting*

Health	Financial Incentives	Education & Perks	Work/Life Balance	Career	Culture & Company Reputation
Health, dental, vision benefits	Sign on bonus	Tuition reimbursement	Shift flexibility and choice	Training opportunities within company	Fun & inclusive workplace
Paid sick time	401k with company match	Incentive points toward product	Paid vacation time Employee appreciation	Promotion from within for those who are committed and driven	Safe environment Family culture
	Incentive pay/bonus system	Onsite perks (car detailing, catering, local discounts)	Community engagement activities or volunteering	Opportunities for advancement	Strong, positive brand recognition
	Referral program with bonus	Union shop	Person-job fit	Opportunities to earn certifications	Company reputation, world-renown, family owned

5.5. Retention Encouraged Upon Hiring

Most employers encouraged retention from the beginning of an employee's tenure. Training opportunities were often advertised with the overt or implied reference to retention worded as "promotion" or "advancement". One company offered growth opportunity, continuous training, and opportunities for certifications to employees who were driven to work for them. Another manufacturer wanted to challenge employees--regardless of whether they want to grow with the company or remain in the same position. One HR Manager immediately shares with applicants and employees how they can progress and advance through the company. She stated that the company has clear career paths with growth opportunities presented and available for all employees to reference. An interesting point made by a final HR manager was that her company ensures that employees understand they control their success within the company based on their performance and commitment to their position.

5.6. Monetary Incentives

Almost all respondents mentioned some sort of incentive pay, sign-on bonus or referral award. A $250 sign-on bonus was the going rate for a one-time or incremental award, often depending on how long the referred employee or the new employee themselves stayed at the company. A cursory survey of recruiting advertisements from other manufacturers not in this sample pool, but local to the area, revealed much higher sign-on bonuses offered. For example, a poultry processor and a foundry offered up to $3000 for some positions that were notoriously difficult to both hire and retain due to challenging working conditions and tasks.

5.7. Tuition Assistance

While tuition assistance has been a long-standing benefit for many employees, in manufacturing, it may not be considered as valuable. Many production positions need little to no experience and skilled trade positions require vocational or technical expertise or training. Employees looking to promote to supervisory or management positions may be interested in tuition assistance. However, HR Managers were mixed in their use of tuition reimbursement. One mentioned that she would like to develop a tuition reimbursement program and career development communication system. A second mentioned her company used to offer tuition assistance, but due to the demographics of their workforce, there was little demand. Finally, another manufacturer offered tuition reimbursement but does not promote it to employees as well as it should.

5.8. Company Reputation And Culture

Interesting aspects of recruitment included highlighting company culture and reputation. In the past, one company had a reputation of being an unsafe workplace, which has since been changed through an adjustment in operating protocol. Now, the HR Manager ensures that potential employees get a tour of the facility to get a feel for the position, begin to understand the culture, and emphasize the safety procedures in place. The company allows walk-in applicants and value face-to-face interactions with applicants, a reinforcement of the culture they have created. The company further advertises its training program and culture of being willing to work with its employees inside and outside the workplace. Another company emphasizes increased engagement activities that promote a fun and inclusive workplace culture; a buddy program that introduces new hires to the job; and new employees are assigned a trainer to follow and work under for their training period. Because one manufacturer places an importance on hiring employees that fit well with the company, one of the biggest selling points that the HR Manager mentioned was that they are a family owned business with a culture that ensures their employees feel cared for. Each of these addresses every new employee's desire to fit in and belong. Perhaps the most appropriate quote was one HR Manager's comment that, "The company wants employees to feel like the company fills a spot that is missing [with] them."

5.9. Recruiting Resources

Survey respondents were asked to indicate the number of external recruiting resources used by their company. Examples were provided such as the Winona Area Chamber of Commerce REACH Program, SHRM membership, or a training partnership with a local technical college. This question was asked to determine whether the companies were focused on internal strategy development to resolve the challenges or external assistance that help generate leads and new ideas for reaching candidates. Sixty-seven percent of respondents used 0-5 external resources to assist in their recruiting

efforts. This means that manufacturers were primarily relying on internal strategy generation and implementation to solve their recruiting challenges. Only one survey respondent indicated that the company used more than ten external resources.

Most participants mentioned involvement with the local Chamber of Commerce and recently launched REACH program, targeted toward preparing high school students for careers in manufacturing. One HR Manager felt that the REACH program was a great learning experience for high school students to help them understand local career opportunities and the skills and knowledge that those opportunities require students to possess. Other employers mentioned greater success in recruiting younger age brackets. Several mentioned partnerships with the local technical college and two universities in order to make connections throughout the community to benefit recruiting efforts. They participated in career fairs, were passionate about developing youth in the Winona community, and promoted the exposure of opportunities in the manufacturing industry. Another company has also found great success by recruiting from boy and girl scout troops because participants fit the target market for the products the company produces, and therefore, have an interest in working with the company. In contrast, one manager said because many of the positions the company hires were production positions, university students were not interested because they possess a notion of over qualification.

Traditional manufacturer recruiting has been targeted toward adults and this trend continues today. Several resources used to reach interested adults included partnerships with local and regional workforce centers, the local Veterans Service Office, and networking with other HR professionals active in SHRM. Enterprise MN, a local consulting organization for manufacturers, was mentioned as a new alternative for recruiting, or at least, recruiting assistance and consultancy. Another resource to draw adults included being heavily present within the community--whether sponsoring events, hosting a golf tournament, hosting a family day, or volunteering to clean a stretch of highway. This involvement helps share positive press about the company and create a community-oriented reputation that attracts potential job applicants.

5.10. Leadership Support

All participants said they felt supported in their recruiting and retention efforts. Strategic decisions that would provide the most valuable and desirable results were encouraged and backed by company leadership. New leadership at one organization better understood the needs of the market regarding recruiting whereas old leadership did not understand the idea of allocating resources to recruitment when growth was flat. Spending to bring in employees during a downswing must be strategic, not hindered but also not overly excessive. One respondent felt more supported within the organization when changes were low cost. And, in the past, it had been difficult for her to prove that some strategies may deserve to be revisited. With a change in leadership that better understood the needs of employees, suggested changes that benefit current employees and prospective employees were more accepted by leadership.

Finally, one respondent felt supported within the organization to make changes if she communicated the value of the shift—an interesting point. Value must be communicated; value cannot be assumed. When the initial change to web strategies, social media in particular, was discussed, the HR Manager received some opposition until she was able to effectively communicate to company leadership that social media recruiting had proven successful for other companies and the likelihood of success if they made a change. Consequently, value should be supported down the line. For example, another HR Manager mentioned that in her position she supported her HR team's valuable ideas that they suggest as her ideas were supported up the chain of command. She said everyone within the organization understood the impact and importance of recruiting.

6. DISCUSSION

Regardless of location, cities, counties, states and national programs exist as well as private and non-profit enterprises to assist businesses with recruiting efforts. In this case, we uncovered current trends in manufacturer recruiting, what is working and not, and combine practice with theory to present a compelling argument to assist manufacturers to successfully recruit the next generation of workers. With numerous local and state resources available to aid manufacturers in their recruiting efforts, and the strategies and tools presented in the findings, employers may discover new solutions to their recruiting woes. Table 2 presents a concise listing of national, state and local resources and recruiting websites used by the manufacturers in this study.

Table2. *Examples of local, statewide, and national recruiting resources*

Organization	Website	Description
Society for Human Resource Management	www.shrm.org	Members have a network of professionals to discuss recruiting challenges and glean solutions
CareerForce	https://www.careerforcemn.com	Locations in Minnesota match job seekers and businesses by providing individual guidance, training, networking, and other career-related services. Most states have something similar.
PIPELINE Program	https://www.dli.mn.gov/pipeline	Minnesota Dept of Labor program gives manufacturers access to grants and technical support in developing training programs for employees.
Apprenticeship Initiative	https://www.dli.mn.gov/business/ workforce/apprenticeship	Minnesota Dept of Labor program offers grants to manufacturers to assist with the costs associated with developing a registered apprenticeship programs.
Youth-Skills Training Programs	https://www.dli.mn.gov/yst	Minnesota Dept of Labor locally developed program supporting development and implementation of experiential learning opportunities for students 16+
U.S. Chamber of Commerce	https://www.uschamber.com/	Local and statewide chapters work with communities to develop the workforce and aid businesses and partners.
Minnesota Chamber of Commerce	https://www.mnchamber.com https://www.mnchamber.com/grow/grow-minnesota-partnership https://www.mnchamber.com/grow/center-workforce-solutions https://www.mnchamber.com/advocate/ business-education-network	Statewide organization helping over 2,300 businesses to grow. Several partnerships aid manufacturers directly such as Grow Minnesota!,the Center for Workforce Solutions, and Business Education Network (BEN) initiative.
Winona Area Chamber of Commerce	https://www.winonachamber.com/	Local chapter offers programming to develop the city's workforce. Pilot location for REACH program.
REACH program	https://www.hotjobscool companies.com/reach/	A collaboration between higher education, the local high school and the Winona Chamber. Provides opportunities for high school students to gain first-hand experience in manufacturing and earn college credit.
Veteran's Service Office	https://nvf.org/veteran-service-officers/	Locations for state Veteran Affairs Offices are listed here.
LinkedIn	https://www.linkedin.com/jobs/	Free to post a job. Employers are charged per click when candidates view the post. Employers can determine a fixed budget and LinkedIn will estimate the number of candidates it will reach.
Indeed	https://www.indeed.com/hire	Free to post a job. Employers are charged per click when candidates view the post. Employers can determine a fixed budget and Indeed will estimate the number of candidates it will reach.
Glassdoor	https://www.glassdoor.com/post-job	Employers pay between $65 and $249 to post a job. Cost depends on the package selected by the employer.
Facebook	Employers post job openings to their company page and the pay to advertise across the Face book network. Targeted demographics and locations. Employers can determine a fixed budget.	

6.1. Taking a Customer-Centric Approach to Recruiting

Findings from the research and interviews indicated that manufacturers did not take a customer-centric approach to recruiting. Lackluster job descriptions, uninformative company websites, andlack of attention to applicant device preferences were missed opportunities on the part of manufacturers. To capture these opportunities, suggestions for improvement center on reframing the view of job applicants as another type of customer for the manufacturer.

The military is one industry that has reframed recruiting efforts to be highly customer-centric. According to the Associated Press(2018), strategies used by Army recruiters "include sending teams of recruiters into CrossFit sports competitions and popular gaming contests such as Ultimate Fighter, Madden Football or the addictive Fortnite: Battle Royale." These strategies were developed after

recruiters continually had little success making phone calls. The Army realized their target market was online, and they are playing these games and participating in these online experiences. Because they better understand their customer, recruiters have hopes that these newly implemented strategies will be effective in reaching target numbers for 2019. While research to understand where manufacturers' recruiting target market would be needed, firms could consider involvement with high school and college robotics teams, Boy Scouts and Girl Scout troops, Skills USA chapters, and military veterans' organizations.

Another strategy that is customer-focused for a younger applicant demographic is student loan payback and investments by the company to pay for postsecondary education or training. In a LinkedIn talent blog, Maxwell Huppert (2018) stated that major companies including Walmart, Starbucks, UPS, and IBM offer plans to assist employees in paying for college or pay off their student loans. Not only do the plans help workers and are used as recruiting selling points, but the education benefits can reduce turnover and recruiting costs enough to pay for themselves. While these plans may be effective in some industries, success may not directly transfer to manufacturers.

7. CONCLUSION

Discoveries from a review of published research and first-person interviews revealed recruiting strategies were not accomplishing organizational goals. By circling back to understand businesses within the manufacturing industry and industry itself, this paper provided suggestions to improve the recruiting process and solve challenges faced with a shrinking pool of available talent. Manufacturers should take a customer-centric approach to recruiting by implementing a variety of strategies focused on fulfilling a value proposition for applicants. By treating the recruiting process as a sales venture and job applicants as another type of customer, job vacancies can be filled with a skilled workforce.

REFERENCES

[1] Amadeo, K. (2018, November 7). *The retail industry and its impact on the economy*. Retrieved from https:// www.thebalance.com/what-is-retailing-why-it-s-important-to-the-economy-3305718

[2] Associated Press. (2018, September 24). *Army misses 2018 recruiting goal*. Retrieved from https://www. foxnews.com/us/army-misses-2018-recruiting-goal

[3] Conlan, C. (2018). Here's how top companies find tough-to-find manufacturing workers. Retrieved from https://hiring.monster.com/hr/hr-best-practices/recruiting-hiring-advice/attracting-job-candidates/finding-manu facturing-workers.aspx

[4] Creswell, J.W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3 ed.). Thousand Oaks, CA: SAGE.

[5] Enginess. (2016, September 14). How designing for mobile is different from desktop. Retrieved from https://enginess.io/insights/6-ways-designing-for-mobile-sites-is-different-from-desktop

[6] Enterprise Minnesota (2018, May 17*). The state of manufacturing* [PowerPoint slides]. Retrieved from https://www.enterpriseminnesota.org/assets/documents/2018_State_of_Manufacturing_-_Survey_ Results _Slide_Deck_-_Final.pdf

[7] Giffi, C., McNelly, J., Dollar, B., Carrick, G., Drew, M., &Gangula, B. (2015). *The skills gap in U.S. manufacturing 2015 and beyond*. Deloitte Development LLC. Retrieved from http://www.themanuf acturing institute.org/~/media/827DBC76533942679A15EF7067A704CD/2015_Skills_Gap_Report.pdf

[8] Huppert, M. (2018, August 9). Walmart's employees can earn a degree for $1 a day—Here's why it makes sense. Retrieved from https://business.linkedin.com/talent-solutions/blog/recruiting-strategy/2018/walmart -education-benefits

[9] Krueger, R.A. & Casey, M.A. (2015). *Focus groups: A practical guide for applied research* (5 ed.) Thousand Oaks, CA: SAGE.

[10] Leibert, A. (2013, December). Hiring difficulties in the manufacturing sector. *Minnesota Economic Trends.* Retrieved from Minnesota Department of Employment and Economic Development website: https://mn.gov/deed/newscenter/publications/trends/dec-2013/hiring-difficulties.jsp

[11] Mulvey, T., Esen, E., & Coombs, J. (2016, January 7). *Using social media for talent acquisition: Recruitment and screening*. Retrieved from SHRM website:https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/SHRM-Social-Media-Recruiting-Screening-2015.pdf

[12] National Association of Manufacturers. (2018). *NAM manufacturers' outlook survey third quarter 2018*. Retrieved from http://www.nam.org/outlook/

[13] National Association of Manufacturers. (n.d.). *Top 20 facts about manufacturing*. Retrieved from http://www.nam.org/Newsroom/Facts-About-Manufacturing/

[14] Pacelli, M. (2017, October 25*). Recruiting millennials for manufacturing careers.* Retrieved from https://www.nist.gov/blogs/manufacturing-innovation-blog/recruiting-millennials-manufacturing-careers

[15] Patton, M.Q. (2002). *Qualitative Research & Evaluation Methods* (3 ed.). Thousand Oaks, CA: Sage Publications.

[16] Perna, M. C. (2018). *Answering why: Unleashing passion, purpose, and performance in younger generations.* Austin, TX: Greenleaf Book Group Press.

[17] Putre, L. (2016, November 21). *Millennial recruiting magic: Solutions from manufacturers large and small.* Retrieved from https://www.industryweek.com/dell-recruiting

[18] Reilly, K. (2014, April 8). Job descriptions that win: 3 outstanding examples. Retrieved from https://business.linkedin.com/talent-solutions/blog/2014/04/job-descriptions-that-win-3-outstanding-examples

[19] Schultz, M. (2017, April 4). *Southeast Minnesota – manufacturing overview.* Retrieved from Minnesota Department of Employment and Economic Development, Labor Market Information Office website: https://mn.gov/deed/assets/2017_Southeast_MFG_Profile_tcm1045-288727.pdf

[20] Schultz, M. (2018, September 4). *Southeast Minnesota economic development region 10: 2018 regional profile.* Retrieved from Minnesota Department of Employment and Economic Development, Labor Market Information Office website: https://mn.gov/deed/assets/rp_southeast_090418_tcm1045-133258.pdf

[21] Smith, A., & Anderson, M. (2018, March 1). *Social media use in 2018.* Retrieved from Pew Research Center website:http://www.pewinternet.org/2018/03/01/social-media-use-in-2018/

[22] Stute, V., Schaff, K., & O'Neil, S. (2018). *Grow Minnesota! partnership spring update 2018.* Retrieved from Minnesota Chamber of Commerce website: https://www.mnchamber.com/sites/default/files/Quartly Rpt_ apr13_ONLINE.pdf

[23] "The unstoppable rise of mobile job search: What employers need to know" (2017, July 27). Retrieved from http://blog.indeed.com/2017/07/27/the-unstoppable-rise-of-mobile-job-search/

[24] Trifilio, S. (2016, July 20). The 3 most common ways to advertise jobs online. Retrieved from https://recruitics .com/blog/advertise-jobs-online/

[25] U.S. Bureau of Labor Statistics. (2017, October 24). Employment by major industry sector, 2006, 2016, and projected 2026 [Chart]. In *Employment Projections.* Retrieved from https://www.bls.gov/emp/tables/employment-by-major-industry-sector.htm