OVERCOMING COMPETITION THROUGH CREATIVITY, R&D AND PATENTS cont.

them out of the ability to further develop their product. It either forces them to not innovate their product, or pay their competitors to use their patents,” Artz said.

Hybrid vehicles, for example, have been affected by the use of defensive patenting.

When Toyota Motor Company began developing the gas-electric Prius more than 10 years ago, the automaker filed for patents on more than 2,000 systems and components of the vehicle. This mercurial patenting on the most minute of details, has forced the competitors to respond in a way that’s favorable to Toyota. “Ford either paid Toyota to use their patents, or to cross-license their patents when Ford created the Fusion,” Norman said.

Honda took a different approach by avoiding the patented systems and creating their own variants, a “fudded hybrid.” However, their rationale is less efficient, getting only 40 miles per gallon, versus the Prius’ 51 miles per gallon.

Nissan has taken an entirely different path to avoid patent issues, by developing the Leaf, a fully electric car.

Mobile phone companies are also known for defensive patenting.

“Mobile phone companies tend to try to patent as much technology as they can,” Artz said. “The industry is filled with lawsuits, settlements and cross-licensing agreements. Patents have really come to mean leverage. Without patents you have no leverage at all.”

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Not included in their study, but also of some importance, the researchers note, is the increasing prevalence of “patent trolls,” people who do no research and development of their own, but purchase the patents of others hoping to capitalize on them in the future. While the practice is largely frowned upon by businesses, it has gained ground in recent years and does have an impact on the way businesses work and maintain patents.

Artz and Norman have both used the information from their study in their Baylor classrooms.

“The reason firms need to innovate and spend money on research and development is that it is critical to their survival,” Artz said. “That’s why we were interested in it, and why it was so important for us to study. What we learned is that the way students may have thought about patents in the past isn’t necessarily the way they work. This work will, hopefully, highlight for students and industry, the value of innovation to a firm.”

Norman agrees, and hopes students and business take away a better understanding of competitive dynamics from the study.

“Innovation is a huge issue,” she said, “The link between spending on R&D and creativity and innovation does impact sales. It’s critical to the bottom line.”

The results of their most recent study have prompted the team to begin looking at possible future areas of study.

“I’d like to look at strategic alliances and how innovation revolves around those alliances,” Artz said.

Norman, too, would like to do further research in that area.

“Things like cross-patent agreements and competitive strategy are very interesting,” she said.

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THESE FACTORS PROVIDE MEASUREMENTS TO DETERMINE RESEARCH WITH IMPACT:

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Whether their research is published in top journals or adopted outside of academia, the faculty of the Hankamer School of Business will continue to play a fundamental role in the shaping of our business world by producing research with impact.

TERRY S. MANESS
Dean, Hankamer School of Business
Research from faculty of Baylor University's Hankamer School of Business that has reached audiences outside of academia.

STEVE BRADLEY Assistant Professor, Management and Entrepreneurship

KENDALL ARTZ Department Chair, Management and Entrepreneurship, and Director of the Baylor Entrepreneurship Program


HOPE KOCH Associate Professor, Information Systems AND

DOROTHY LEIDNER Ferguson Professor of Information Systems and Director of the Information Systems PhD Program

Koch has conducted social networking research to help organizations learn how to leverage social networking technologies. In January 2010, she presented "Using Social Networks to Build Your Brand," in the 2010 National Entrepreneurship Alliance Educators Forum. Koch and Leidner, with Baylor PhD student and coauthor Franz Gonsior, wrote "Assimilating Generation Y Turned Hits Into USAA Workforce: The Role of an Enterprise 2.0 System," which was published in the Journal of Management Development, December 2010. The article will impact businesses by providing insights into using internal social networking systems to increase employee engagement. The research team also wrote "Building IT-Culture Conflict in Enterprise 2.0 Implementations," which they submitted to the American Conference on Information Systems. This paper discusses how organizations with cultures that contrast with the values of Enterprise 2.0 technologies may implement Enterprise 2.0 technologies in an attempt to change their culture, and the conflicts and resistance that can occur.

The research team has currently investigating the implementation of social networking systems to improve innovation, knowledge sharing and communication within organizations. If you would like to participate in this research, please contact Hope_Koch@baylor.edu.

The husband and wife team worked together on a major paper for the first time when they published "How Website Socialness Leads to Website Use" in the European Journal of Information Systems. This paper was published in January 2011 (along with coauthors Julie Baker and Liz Wang).

Robert Wakefield, associate professor of Information Systems, and Kirk Wakefield, professors of marketing, directors of Music & Entertainment Marketing and Sports Sponsorship & Sales, and holder of the Edward W. Streetman Professorship in Retail Marketing, noted that the website socialness perceptions (like helpfulness and familiarity) into their commerce sites in hopes of making more sales. The research of these sites depict a social response from their users, which makes the site more enjoyable. Engagement, entertainment and stimulation keep users on the site longer, giving businesses increased opportunities for sales.

The Wakefields’ study explored the effects of how websites socialness shaped users’ beliefs, attitudes and subsequent behaviors.

"When you step into a store, sales people and other social factors influence your behavior," Kirk said. "We wondered how introducing a social feeling to a website would influence users’ attitudes and behaviors there.

The Wakefields manipulated two websites with two different types of products for their study: the first, a utilitarian site, that sells window blinds; the second, an entertainment site, for a professional wrestling organization.

They added an element that Kirk first noticed years ago, when visiting a San Antonio Spurs ticket website: an avatar of a person (which appears as a video-taped human guide, rather than a cartoon-avatar avatar).

"When you have attributes like voice and language, people are more likely to engage in the site," Kirk said. "You’re interacting with the avatar, even though you know it’s a computer.

The human qualities of the avatar give the site a more social feel.

“When you use something like an avatar to guide users through the experience, you make the website anthropomorphize," Kirk said. "It gives character to the website or the company.

Working with revo.com, the Wakefields presented their website to 300 Internet users at each site. 150 users saw the pages with no avatar; 150 users saw the video avatar.

Users were asked to rate whether they would describe the site in terms like: friendly, helpful, informative, entertaining, humorous and interactive. They were also asked about the ease of use (whether or not they felt they would be able to make a purchase if they were in a hurry, if a purchase would be time-consuming or efficient, etc.); enjoyment (gave them a sense of adventure, enthusiasm, entertainment, etc.); and how enjoyable it was to use the site.

Their findings showed that the website socialness perceptions lead to user enjoyment that resulted having a strong influence on how the site was used, in both the utilitarian and entertainment contexts.

"From a marketing standpoint, we want to know how do you make people feel," Kirk said. "Is it the same way people like Facebook: it’s the social interaction. There is something to interact with. It keeps people going back. It keeps people coming back in.

And that, said Robin, is the important piece for her field.

"The implication for website designers is that using this socialness is not just about getting people to go to the site, but to stay on the site and use the site, whether that’s for buying, or reviewing, or whatever your goal," she said.

While their findings did align with their original hypothesis, the Wakefields were surprised by the difference in perceptions between the utilitarian and entertainment sites.

"We found a bigger contrast in the way the window blinds websites was perceived with or without the avatar," Robin said. "It seemed to surprise people, in a good way, when they went to a site that could be as very straightforward and not very creative, and found a social element. The socialness of the utilitarian site was a stronger influence than at the site that people were visiting as a form of entertainment.”

Both professors use the information they found in their classrooms, mainly for methods in information systems, and ways to improve online rating in marketing.

The things they learned from this study have already led the Wakefields toward a new research project. They are planning to study how sites that are already using socialization to a great degree, like Facebook, can be used by companies to create social interaction and engagement.

"Some companies are already using social networking sites in marketing campaigns, sales and customer services departments from some big accounting and consulting firms are using Facebook screening pages to reach out to recent MBAs.

We want to look at how best to use these social sites is not only recruit, but keep potential candidates engaged through these sites.

Wakefield believes there is also further study to be done in looking at social networking sites for advertising.

"What we did was just one off the two big things companies want to know: how will we use social media?" Kirk said. "I want to look at places like Facebook as advertising venues. We know that our social nature influences our behavior in almost everything we do. I want to look at how that social influence translates to how we market.”
A journal reviewer’s rigor prompted **Ted Moorman** and his research partner to take multiple leaps at their findings about monetary policy and stock returns so they could explain them with clarity.

Only after several months did the picture become clear enough for the researchers to explain their work to others, says Moorman, an associate professor of Finance, Insurance and Real Estate. He credits the reviewer’s presiding with the logical explanations in the article, “Inter-temporal Variation in the Illiquidity Premium” that appeared in the November 2010 Journal of Financial Economics.

The reviewer’s words to Moorman and coauthor Gerry Jensen of Northern Illinois University were: “I want a linear, logical story beginning with monetary policy and ending with stock returns.”

That insistence improved the paper, Moorman said. “But it seemed like that was the most difficult part because one of the theories we looked at directly related to monetary policy to this illiquidity premium.”

Moorman and Jensen found evidence of a systematic link between shifts in monetary conditions and the difficulty or ease in trading a stock, and the extra return an investor might get on a stock that is difficult to trade, and how that changes over time.

The researchers used monetary policy as a measure of the funding available to investors in capital markets because they knew that expansive monetary policy created a surge in funding, and that restrictive monetary policy created restraint. They faced the challenge of couching the theory in language that an empirical reader could understand. But that problem dissipated as they parsed the findings.

Moorman focused on the data and Jensen took the writing lead because of their individual strengths.

“He took most of the burden of explaining the details of monetary policy data,” Moorman said. “He also suggested tests to run. I worked very hard to try to clarify our argument and some of the discussion. We were both involved in every step along the way.”

The research was attractive to the publisher for several reasons.

“Some of these theories were pretty new and not completely worn out in their testing,” Moorman said. “Showing how some very recent theories could explain phenomena in markets was attractive.”

The subject also Oil very popular with the attention focused on monetary policy, he added.

Moorman’s research on liquidity continues. He also focuses his research on topics related to his classroom lectures on investment analysis.

“Like to have my teaching and research as one thing—to have my research motivated from my teaching,” he said. “What I get from research, I like to bring that back into my teaching.”

**Ann Mirabito**

**Three-fourths of health care spending is related to chronic disease,** and more and more companies are making health care a priority. But some firms have been innovative in improving health care offerings, and she and her colleagues, who have studied businesses’ health care initiatives for years, decided to study workplace wellness programs that make a difference.

The research team examined existing research and wellness programs at 10 companies with reputations for “excellent workplace wellness programs,” Mirabito said. They talked to about 350 people in interviews that lasted from 21 minutes to an hour.

“We interviewed the CEO, the CFO, the vice president for HR, people in charge of wellness programs, middle managers,” Mirabito said. “And then we interviewed employees who used the program and employees who did not use it. We asked people different questions depending on who we were talking to.”

For example, they asked company leaders their original motivations. Had those motivations changed? They asked about benefits, challenges, and if the leader had a “do-over,” what would it be?

“Almost 9 in 10 respondents saw workplace wellness programs as good investments,” Mirabito said. “The smartest companies also make sure their employees have a say in what programs they offer.”

The research team looked at the data and analyzed it. They also interviewed about 300 people and created a hit combination for a Baylor professor and her colleagues testing theories about workplace wellness.

**A subject that affects everyone, a quest for facts, and a formula that provides cost savings for businesses** created a hit combination for a Baylor professor and her colleagues testing theories about workplace wellness.
They asked users and non-users of workplace programs about what they liked best, what they wished the programs included, and why they used it or did not use it. “We took online, real-time notes and reviewed transcripts, and six themes came out,” she said. “We reviewed the workplace wellness literature. We validated our findings with further discussion with the sample companies and with other workplace wellness experts.”

Although wellness programs have been around since the 1950s, the business case for them has been elusive. Minnitis and her fellow researchers discovered that sound, well-planned programs boost business in three ways: provide lower health care costs, higher productivity and a stronger organizational culture and morale, which means less employee turnover and more loyalty.

So what does workplace wellness involve? Does it mean you build a gym and, voila, employees are healthy? That might be part of it, Minnitis said, but an effective program is built on pillars.

1. Multilevel leadership. This includes participation by the company’s top leader and by middle managers, wellness program managers and wellness “champions.”

2. Alignment. Important to this pillar is making wellness a part of company culture, which takes both patience and planning. As the paper says, “organizations in our sample favor positive incentives because employees lose trust when they feel they’re being forced to act against their wishes.”

Minnitis said it takes at least three years to establish a wellness culture.

3. Scope, relevance and quality. Successful wellness programs are broad, focusing on the whole person and individual needs rather than only select issues such as diet, cholesterol levels and exercise. Programs that work best recognize the devastating effects of stress, for example, and offer counseling for a whole range of life, from divorce and depression to money management. As the article says, these programs are “just plain excellent. Outstanding, employee (and partner) participants.”

4. Accessibility. From offering healthy food and snacks at work to health fairs and exercise centers that people can fit into a workday, making wellness easier to attain is integral to a successful program.

As competition increases, and the average life-cycle of products decreases, the success of businesses depends even more on their ability to generate a continuous stream of innovations.

KENDALL ARTZ

Appraiser Chair of Management and Entrepreneurship, and director of the Baylor Entrepreneurship Program, and PATRICIA NORMAN, associate professor of Management and Entrepreneurship, set out to determine the factors in innovation that allow corporations to maintain a competitive advantage while improving their financial bottom line.


The team drew from a sample of 272 firms in 35 different industries, looking at data accumulated over a 19-year period.

"Innovation was the first factor considered by the researchers. Artz and Norman evaluated companies’ investments by looking at the number of patents they received. They also studied innovation, by looking at the number of new product announcements made by the companies. They then examined the relationship between the two indicators and how the relationship affected the companies’ financial success.

"The basic question we set out to answer was what is the impact of a firm’s R&D on patents and firm performance,” Artz said.

Continued on next page >
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