



focus

Judging Research with Impact



Successful research often starts with a belief that you will find something that will make a difference. With business schools spending millions of dollars a year to support faculty research, our findings *should* matter, and at Baylor University's Hankamer School of Business, we have conducted studies that matter for decades.

As professors dedicate years to research, a crowning accomplishment is for their findings to reach others through publication. This issue of Focus features our faculty research that has been featured in top publications such as the *Journal of Product Innovation Management*, *European Journal of Information Systems*, *Journal of Financial Economics*, and *Harvard Business Review*. The publication of academic research is a conduit for showcasing *potential* impact of research, but its *actual* impact is measured after the research is widely disseminated.

In each issue of Focus, we also highlight faculty research that has reached audiences outside of academia. This thought leadership has inspired change within corporations, industry-supported studies, and practitioners' adoption and implementation of research ideas.

How do we judge research with impact? The Association to Advance Collegiate Schools of Business (AACSB) serves as an international accrediting organization for business schools and defines effective research as diverse, highly visible, and accessible to the public at large.

THESE FACTORS PROVIDE MEASUREMENTS TO DETERMINE RESEARCH WITH IMPACT:

- *the number of times a published article is cited*
- *the number of awards its authors receive*
- *requests to present papers at important gatherings*
- *sales numbers of books*
- *testimony before a government or other policy-making body changes in business practice*

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

WEBSITE SOCIALNESS AND THE POWER OF (VIRTUAL) HUMAN CONNECTION

When designing a website, people often think of ways to make it user-friendly. There is much effort put into accessibility, ease of navigation and even how rapidly pages will load. But when **ROBIN** and **KIRK WAKEFIELD** looked at design, they wanted to know what would make a website seem more social. They investigated how the perception of socialness contributed to how people felt about the site, and therefore, the company it represents.



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* in January 2011 (along with coauthors Julie Baker and Liz Wang).

Robin Wakefield, associate professor of Information Systems, and Kirk Wakefield, professor of Marketing, director of Music & Entertainment Marketing and Sports Sponsorship & Sales, and holder of the Edwin W. Streetman Professorship in Retail Marketing; noted that the website designers are beginning to incorporate social cues (like helpfulness and familiarity) into their e-commerce sites in hopes of making more sales. The social aspects of those sites elicit a social response from their users, which makes the sites more enjoyable. Excitement, entertainment and stimulation keep users on the site longer, giving businesses increased opportunities for sales.

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

“When you shop in 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-animated avatar).

“When you have attributes like voice and language, people are more likely to engage in the website,” Robin 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 anthropomorphic,” Kirk said. “It gives character to the website or the company.”

Working with rovin.com, the Wakefields presented their websites to 300 Internet users. At each site, 150 users saw the pages with no avatar; 150 users saw the pages with the video, human avatar.

Users were asked to rate whether they would describe the site in terms like: friendly, helpful, polite, informative, likeable, intelligent 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.); perceived usefulness and the likelihood that they would make a purchase from the site.

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

“From a marketing standpoint, we want to know how do you make people feel,” Kirk said. “It’s the same reason people like Facebook: it’s the social interaction. There is something to interact with. It keeps people on the site.”

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 training, or whatever your goal is,” 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 website 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 seen as very straightforward and not very creative, and found a social element. The socialness at 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 retailing 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 socialness 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 recruiting,” Robin said. “For example, human resource departments from some big accounting and consulting firms are using Facebook recruiting pages to reach out to recent MBAs. We want to look at how best to use these social sites to 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 used to be an add-on is now the first thing 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.”

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 Business” for nearly 200 business entrepreneurs at the Supply and Equipment Foodservice Alliance Executive Forum.

Koch and Leidner, with Baylor PhD student and coauthor Ester Gonzalez, wrote “Assimilating Generation Y IT New Hires Into USAA’s Workforce: The Role of an Enterprise 2.0 System,” which was published in *MIS Quarterly Executive*, December 2010. The article will impact business by providing insight on using internal social networking systems to increase employee engagement. The research team also wrote “Resolving IT-Culture Conflict in Enterprise 2.0 Implementations,” which they submitted to the Americas Conference on Information Systems. This paper discusses how organizations with cultures that contrast with the values of Enterprise 2.0 systems can implement Enterprise 2.0 systems in an effort to change their culture, improve knowledge sharing and improve communication.

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

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
AND

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

Bradley and Artz’s research explains the power of microcredit and innovation in developing economies, and has the potential to impact countries across the globe. Bradley and Artz, with Jimmy Hulett, wrote “The Innovation Necessity: Evidence from Microcredit in the Dominican Republic” published in the *Journal of International Development*, December 2010. Bradley and Artz, with coauthors Jeff McMullen and Edward Simiyu, wrote “Capital is Not Enough: Innovation in Developing Economies” published in the *Journal of Management Studies*, 2011.

Artz will present “Self-employed or Employing Others? Pre-Entry Capabilities, Entrepreneurial Action, and the Learned Resourcefulness of Microcredit Firm Founders,” coauthored by Steve Bradley, Jeff McMullen and Edward Simiyu, at the Babson College Entrepreneurship Conference, which will be held in Syracuse, N.Y., June 2011. Bradley will present “Entrepreneurial Networks – the Ties That Free or the Ties that Bind? Evidence from Microcredit Lending Groups,” coauthored by Mitchell Neubert, Baylor associate professor and Chavanne Chair for Christian Ethics in Business; Hana Milanov and Edward Simiyu, at the conference.

VAN PHAM Associate Professor, Economics

Pham’s research focuses on the study of labor markets, international trade, economic growth and industrial organization. By applying economic theory to these aspects, Pham’s research has implications for trade and local policy as well as business strategy.

His paper, “Imports ‘R’ Us: Retail Chains as Platforms for Developing-Country Imports,” coauthored by Emek Basker, was published in the *American Economic Review Papers and Proceedings*, Vol. 100, No. 2. Pham and his coauthor presented this research at the American Economic Association’s annual meeting in 2010, and at universities across the nation and the world including Australia, Israel and Canada.

THEODORE WALDRON Assistant Professor, Management
and Entrepreneurship

Waldron’s research explores the growing influence of social forces—such as activist organizations—on commerce. More specifically, his studies address the antecedents, mechanisms and consequences of activism against firms and markets.

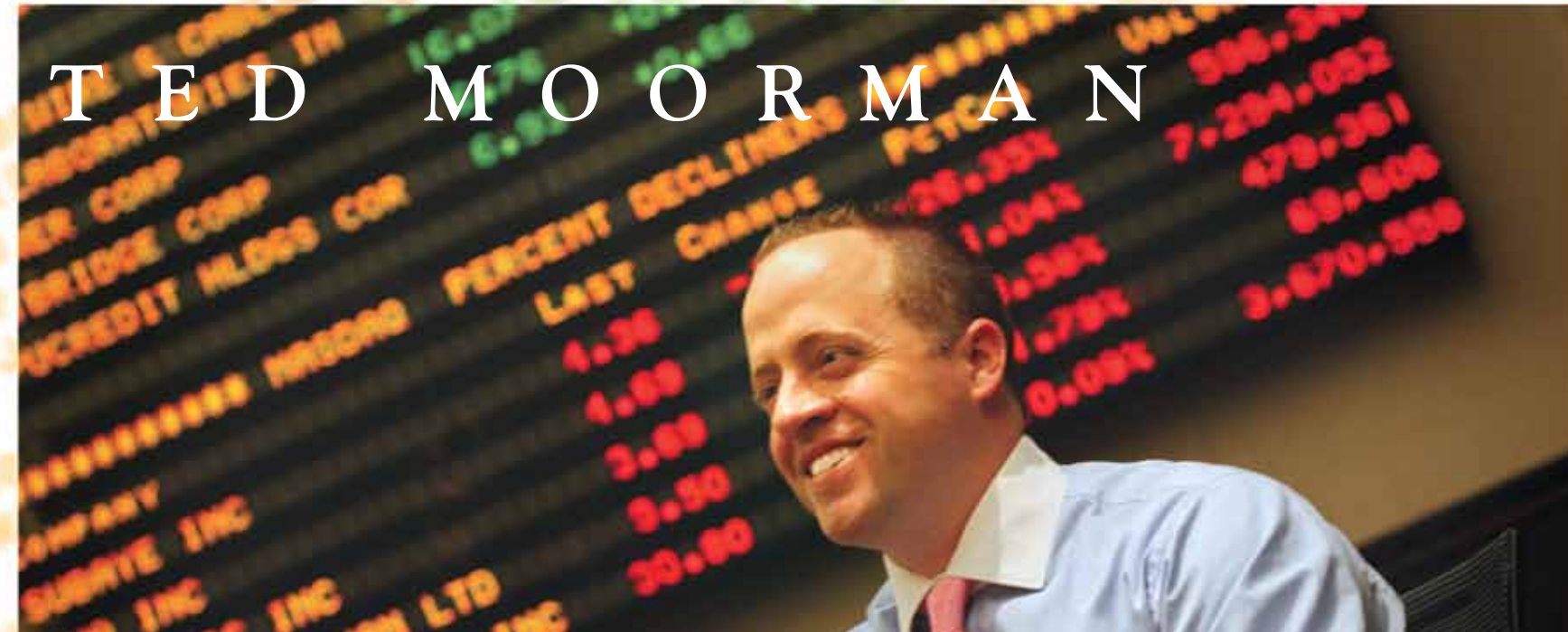
Waldron’s work, “Non-Market Action: Explaining How Non-Market Players Disruptively Change Corporate Competitive Practices,” is included in the forthcoming book *Market Entry, Competitive Dynamics, and Entrepreneurship*, Cambridge, Mass.: Edward Elgar Publishing.

Waldron has presented his work at a number of international conferences. He presented “Activist Attack Strategies,” coauthored by Gideon Markman, at the Academy of Management Meeting held in Montreal, Canada, August 2010.

Waldron will present “Non-Market Action: Exploring How Non-Market Players Disruptively Change Corporate Competitive Practices” and “Organizational Conflict: Explicating the Influence of Non-Market Players on Firms and Markets,” coauthored by Gideon Markman, at the Academy of Management Meeting, which will be held in San Antonio, Texas, August 2011. He will also present “Activist Campaigns Against Markets: Conceptualizing the Role of Corporate Identity in Campaign Effectiveness,” coauthored by Chad Navis and Greg Fisher, at the meeting.

Waldron will present “Non-Market Disruption: The Consequences of Non-Market Action for Industrial Competition,” coauthored by Gideon Markman, at the Strategic Management Society Conference held in Miami, Fla., October 2011. Waldron will also present “Social Collaboration Strategies, Corporate Social Responsibility, and Firm Reputation,” coauthored by Baylor faculty members Kendall Artz and Patricia Norman, at the conference. He will present “Corporate Identity and the Effectiveness of Activist Campaigns Against Markets,” coauthored by Chad Navis and Greg Fisher, at the Southern Management Association Meeting held in Savannah, Ga., November 2011.

CONNECTING THE DOTS BETWEEN MONETARY POLICY AND STOCK RETURNS



T E D M O O R M A N

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.



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Only after several rewrites did the picture become clear enough for the researchers to explain their work to others, says Moorman, an assistant professor of Finance, Insurance and Real Estate. He credits the reviewer's prodding 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 none of the theories we looked at directly related 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.

Improved liquidity and funding reduce the returns required for holding illiquid securities, Moorman said. "Consequently, illiquid stocks experience relatively large price increases when monetary conditions become expansive, and the measured return spread between illiquid and liquid stocks expands substantially," he said. "Our evidence supports the claim that the price of asset liquidity is dependent on monetary conditions."

Moorman, at Baylor since June 2010, says the research was a way for him to meet the monetary policy interests of his coauthor, a colleague at Northern Illinois University.

"Liquidity was of interest to me—not something I had studied much before—but I thought that these two (monetary policy and liquidity) might be related," he said.

He and Jensen discussed ideas, found studies that supported their interests and got to work.

"The data presented itself with a story that seemed backed up by theory," Moorman said. "You have to have a clear, robust result and theory that can explain that result, otherwise it can just be a pattern, or just a theory unsupported by the data."

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 phenomenon in markets was attractive." The subject also offers popular appeal 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.

"I 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."

THOUSANDS OF READERS DRAWN TO WORKPLACE WELLNESS RESEARCH

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.

After hundreds of interviews across a spectrum of industries, **ANN MIRABITO** and two coauthors determined that successful wellness programs require six components and put forth their findings in an article, *Harvard Business Review* fast-tracked the piece, and the trio's research came out in the December 2010 issue. Months later, reviews and queries are still coming in. One online story about their story has been viewed more than 10,000 times.

Mirabito and colleagues Leonard L. Berry at Texas A&M and William B. Baun at MD Anderson Cancer Center get to the heart of the matter quickly in the article, "What's the Hard Return on Employee Wellness Programs?" A subhead reveals, "The ROI data will surprise you, and the softer evidence may inspire you." The paper then unwraps the case for well-planned programs, revealing the "hard return" like a birthday present for business.

The research attracts interest because of the costs of health care, said Mirabito, an assistant professor of Marketing. "And also because America is getting less healthy every day," she said. "We have done so much to eliminate many infectious diseases. What is crippling us now is chronic disease."

She offers these facts:

- Many companies will spend more on health care than they will earn in corporate profits.
- Before GM was restructured, GM spent more on health care than on steel.
- Three-fourths of health care spending is related to chronic disease, and much of that is related to lifestyle.

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A N N M I R A B I T O

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THOUSANDS OF READERS DRAWN TO WORKPLACE WELLNESS RESEARCH cont.

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 1970s, the business case for them has been elusive. Mirabito 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 healthier? That might be part of it, Mirabito said, but an effective program is built on six 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." Mirabito 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 items 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 ills, from divorce and depression to investment counseling. As the article says, these programs are "just plain excellent. Otherwise, employees won't participate."

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.

At the software company SAS, 70 percent of employees use a campus' recreation center twice a week. The director said leaders thought of the reasons people would not use it and "worked to eliminate every one of them."

5. Partnerships. Communications company Comporium worked with the YMCA to develop "metabolic makeovers" for at-risk workers. Home products giant Lowe's had mobile labs visit stores and other workites for employee convenience.

6. Communications. Talking about the wellness program is important for buy-in, and tailoring the message to individuals is important, the researchers found. One firm with a competitive corporate culture devises wellness scorecards for company units to emphasize the health message. Also, an important part of communicating is using diverse means to dispense the message, from flyers in elevators to fruit dropped on desks as event reminders.

Assessing how the programs work helps connect the investment to the results. So Mirabito and her researchers created a dashboard that shows companies how to measure wellness objectives.

"In the same way a marketing initiative's impact is measured through market share, revenue, profitability, customer satisfaction and loyalty, there is a similar set of diagnostics for workplace wellness programs," said Mirabito, who teaches Principles of Marketing to primarily junior and senior students. The researchers found that the most useful yardsticks for employees were participation and satisfaction, and for organizations, financial productivity and cultural outcomes.

"What we found again and again was the notion that workplace wellness is good for the employee and good for the firm," Mirabito said. Terry Heimes, CFO at education planning and finance firm Nelnet, told her: "If your only reason is to cut health care costs, you won't get employee buy-in and support because there's nothing motivating for anyone other than senior management."

"The whole win-win notion is really important," Mirabito added. "If all the firm is interested in is cutting costs, there are many ways to do it. That is not the motivator for the firms investing in workplace wellness. They do it because it's good for employees and the firm."

She and her colleagues discovered that firms with quality wellness programs were quick to participate in the research. They were interested in an independent review of their program. The researchers helped them identify strengths and opportunities.

"Also, they were very interested in helping to make it easier for other companies to adopt workplace wellness programs," she said. "The

biggest reason more companies don't offer workplace wellness is uncertainty about what workplace wellness is, why it is important, and what kinds of benefits a firm can expect. These are the important questions we sought to answer."

Mirabito's article is a success, ranking as a top three download from *Harvard Business Review's* website in December 2010, its month of publication. Several months later, entering the article title into search-engine giant Google yielded more than 100 hits. Meanwhile, two follow-up articles, one designed for physicians and one for workplace wellness leaders, are in the works.

"The article is making a big splash because it offers employers a blueprint for effective workplace wellness programs," Mirabito noted. "Workplace wellness might seem simple, but it's complex in the same way marketing is complex. Some might think of marketing as creating a funny commercial and airing it during the Super Bowl. But strategic marketing involves setting objectives, identifying strategies to achieve and tactics to support those strategies."



OVERCOMING COMPETITION THROUGH CREATIVITY, R&D AND PATENTS



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, department chair of Management and Entrepreneurship, and the director for 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 lines.

In their paper "A Longitudinal Study of the Impact of R&D, Patents and Product Innovation on Firm Performance," published in the *Journal of Product Innovation Management* (3rd Quarter, 2010), along with coauthors Don Hatfield and Laura Cardinal, Artz and Norman examined the relationship between a company's commitment to research and development and its innovation.

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

Invention was the first factor considered by the researchers. Artz and Norman evaluated companies' invention 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.

"Individual parts of that question had been studied before," Norman said, "but we wanted to look at it all together."

Based on those previous studies, the team hypothesized that as spending on R&D increased, the number of patents would increase, but that at a certain point, inefficiencies would set in, causing the number to again decrease.

"Instead, what we found, is that instead of turning down with inefficiencies, the curve goes up," said Artz. "The more R&D a company does, the more patents they secure and product announcements they make."

Apple, for example, is heavily invested in research and development. "Apple is a very innovative company, and their R&D focuses on products that complement each other," Norman said. "They definitely see a greater return as they continue to spend in that area."

But the biggest surprise for the researchers came when they looked at how the number of patents correlated with ROA (return on assets) and sales growth.

"We expected there to be no direct relationship between patents and performance," Norman said. "What we didn't expect to find is that there is actually a negative relationship."

One reason they believe this negative relationship exists is because of the way patents are used, not just to protect new ideas and inventions, but also as tools to prevent the competition from doing the same.

"There is a trend for some companies to engage in using patents as a strategic weapon, defensive patenting," Norman said. "A company can secure extensive patents around a competitor's key patents, and essentially lock

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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.”

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 meticulous patenting on the most minute of details, has forced the competition 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 version, a “mild hybrid.” However, their Insight 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 possible 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.”

“This may not show up in sales numbers, as our research points out,” Norman said, “but it definitely affects the dynamic of what's going on in the industry.”

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 seek 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 businesses take away a better understanding of competitive dynamics from the study.

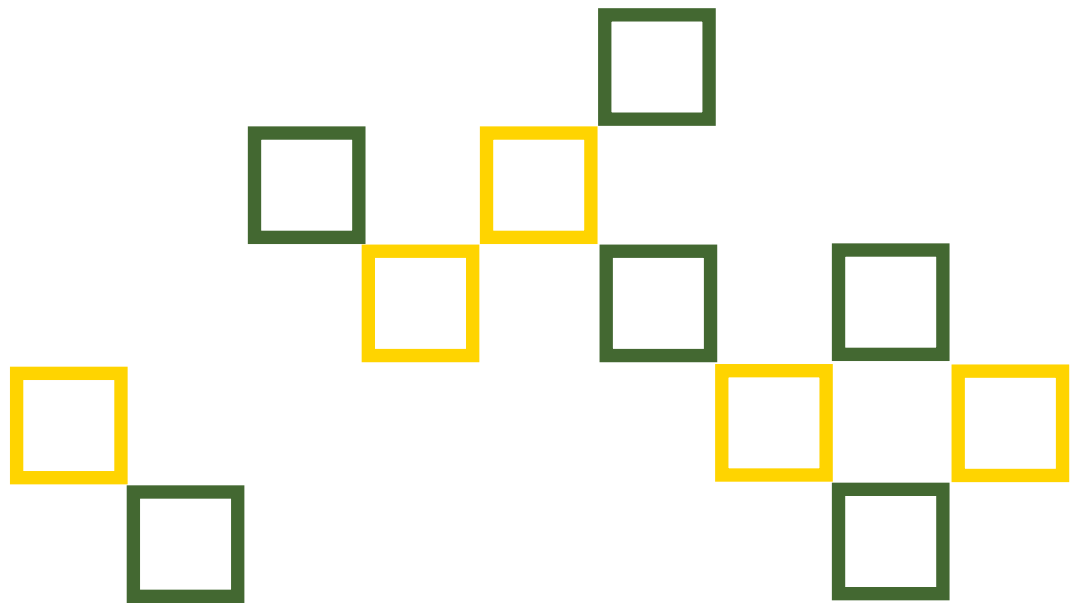
“Innovation is a huge issue,” she said. “The link between spending on R&D and creativity and innovation does impact sales. It's critical to the bottom line.”

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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