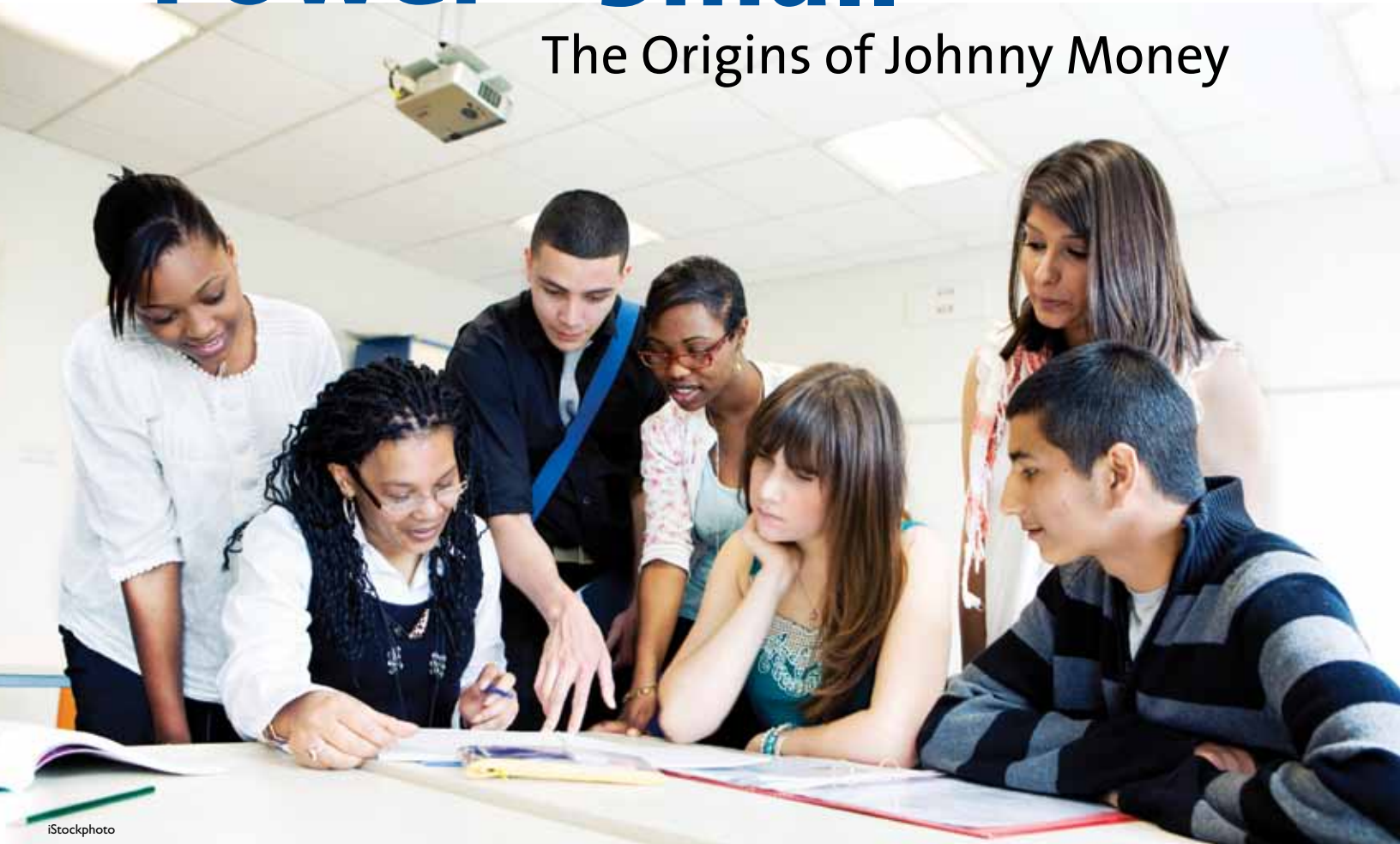


# The Power of Small

## The Origins of Johnny Money



Because I spent much of my early life in Africa, having been born and raised there, I have long felt frustration at the enormous amount of funds wasted by nongovernmental organizations and numerous elected governments on initiatives that create dependence instead of self-sufficiency. Over time, my concerns about the disconnect between funding goals and performance reality influenced both my reengagement with Africa and my efforts to help disadvantaged high school students in the United States.

I came to the conclusion that it was not useful to rail about \$3 trillion in African aid getting spent wastefully and much better to figure out a new approach, one that would help people help themselves. To start, I conferred with colleagues at the University of Pennsylvania's Wharton School. We thought it might be possible to attack some of the problems in Africa by helping create entrepreneurial businesses that would be profit making. Maybe they would not make a lot of profit, but in Africa, even \$5,000 per year in profits can catapult someone into the upper middle class.

What we learned from helping to create small-scale businesses in Africa and then scaling them up led to our wondering whether some of the same principles might apply in underserved parts of the United States—and whether a game especially designed for high school students could play a role.

## First, Africa

To build self-sufficiency for people in Africa by helping them create their own businesses, a group of us developed the Wharton Societal Wealth Program. We focused on small projects that we thought could have a big impact, and we were open to all ideas. In one successful case, we gave business-planning support and technical advice to an animal-feed producer to make high-quality, lower-cost feeds in northwest Zambia, a region badly hurt by the high unemployment that followed the collapse of copper prices and copper mining.<sup>1</sup>

The idea was to use the University of Pennsylvania Veterinary School's modern computer programming to calculate optimal mixes for chicken feed in hopes that an improved and less expensive product would expand local chicken production in Zambia and help to curb the growing malnutrition. The project started in 2003 with six men mixing feed by hand in a shed on a cement floor. Distribution was not designed to replicate the conventional large-scale, high-volume model but instead to tap a regional network of small feed producers. With the use of new Swiss machinery, the project has expanded and now produces 1,200 tons of feed per month. Thanks to lower prices and quality improvements, 1,500 new Zambian farmers are raising enough chickens to deliver more than 50 million daily protein portions per annum.

## Not Just Africa

With several projects underway in Africa, we began to think about equally deprived U.S. communities in places like Camden, New Jersey, which is across the Delaware River from Wharton. What struck us most about the struggling pockets of America was that their young people often dropped out of—or even graduated from—high school without any understanding of what goes on in a business. How could they get or hold jobs without some business knowledge? We saw that in New Orleans after Katrina,

there was 80 percent unemployment among young black mothers alone. Something had to be done.

When we mulled over ideas to help underserved communities, our thoughts often turned to a former colleague, D. Bruce Merrifield. During the Reagan administration, Merrifield was both Assistant Secretary of the Department of Commerce for Technology and Undersecretary of Economic Affairs. As such, he was always finding ways to lend capital to promising new businesses in underserved areas. But one of his major concerns was, like ours, the lack of a basic understanding of business among high school graduates, especially in poor urban and rural areas.

A few years ago, the group at Wharton learned that the National Federation of Independent Businesses (NFIB) was seeking solutions to this same problem and was in the process of developing a game

to enable high school students to simulate setting up, designing, and running a small retail business.

From discussions with Merrifield and other experts, and with support from the William F. Holekamp Fund for building on societal entrepreneurship projects, the Wharton Societal Wealth Program teamed up with NFIB and its Young Entrepreneur Foundation. We advised on the development of a business-simulation game called Johnny Money. The game allows players to “start” a business online and teaches key concepts—for example, how companies decide on products and inventory, how they manage cash flow, marketing and employee morale, how they make profit estimates.

Anyone can play Johnny Money without charge at <http://game.johnnymoney.com>. Players are asked to identify themselves as students, teachers, or just people interested in learning more. Teachers can

**An increased understanding of what is involved in running a business will help students to be more employable.**



iStockphoto

# Johnny Money and Me

by Eric Mendes, Federal Reserve Bank of Boston

From smart phones to laptops, the Internet, and other technological advances, it is clear that technology has become an integral aspect of our daily lives. So it is not shocking that another aspect of life—education—is making its move toward the Internet. Johnny Money is one of the newest online games designed to educate users.

Johnny Money is a Flash-based game intended to help its audience understand the complexities of running a business. The game itself is designed to appear very web 2.0. The site features numerous gradients (gradual changes in color), slick animation, objects that appear to cast shadows (also known as drop shadows), and even some reflections. It has a fluid and easy-to-use interface that draws its audience in.

Johnny Money requires that you sign up online before you play. This allows the user to create multiple “businesses” without fear of losing past games or anything that has been saved. After the initial sign-up, the user is taken through the business-guidance process, which includes determining whether to sell Surf & Skating equipment or to take the Gifts & Gadgets route.

The user then creates a name for the store, decides whether it is a sole proprietorship or a group venture, and also determines whether or not the store will need a small business loan. Johnny Money guides the user through with accommodating audio and small helpful bubbles of extra information. In an effort to give users full control over their ventures, Johnny Money allows them to design their own company logos using a mix of different colors, shapes, and icons. This process is easy and straightforward and should not take more than 10 minutes. Afterward, the user can pick up to three products to stock on the store’s shelves.

In the same way that worms rise to the surface after a rain shower, all the intricacies of running the business come to light as one plays through the game’s simulated 24-month time span. At the end of each month, the user is presented with the monthly report. This report details the business’s current value, account balance, credit score, and how well each individual product sold during the course of the month. Each report is accompanied by a helpful graph detailing the company’s progress. The game also includes an employee-morale chart, another realistic touch.

Throughout the business simulation, numerous random events test users’ ability to think on their toes. For instance, during my simulation, a hurricane damaged my store and most of my inventory. Thankfully, I had purchased insurance, but it was still shocking to have it occur. I had to deal with leaky roofs, damaged shelves, and even the upheaval of a presidential disaster tour. All things considered, Johnny Money provides a foundation of the principles of running a business with appeal for every age.

**Eric Mendes**, a student at the University of Massachusetts, tested the Johnny Money game as an intern in the Public and Community Affairs Department of the Federal Reserve Bank of Boston.

take students through the game, pausing it after each episode for discussion and explanations, or they can let students do it themselves. It usually takes less than an hour. Students learn to make increasingly savvy decisions and can restart the business if it fails. After playing Johnny Money, students have some idea of what it means to be in a business. If they become successful entrepreneurs down the road, so much the better, but at the very least, a much increased understanding of what is involved in running a business will help them to be more employable.

Johnny Money is currently used only in the United States, but within four years we hope to see it in schools internationally, wherever English is taught. A Spanish version also is in the works. Today the game has recorded 3,600 teacher accounts and 80,000 student accounts. As many as 153,000 “businesses” have been set up. Although the game is so far getting the most action in Florida, Georgia, North Carolina, South Carolina, Pennsylvania, Ohio, Nebraska, and Michigan, the need for high school students to understand the working world better is acute in parts of every state.

As popular as Johnny Money has become in certain regions, more work is needed to demonstrate that the idea of creating something big by starting with something small, which we tested in Africa, is having a desired impact in America. Questions about increased levels of employment in the areas where students have played the game—or increased interest in math—are among the questions slated for the next round of research.

---

**Ian C. MacMillan** is the academic director of the Sol C. Snider Entrepreneurial Center and the Dhirubhai Ambani Professor of Innovation and Entrepreneurship at the University of Pennsylvania’s Wharton School. He is co-director of the Wharton Societal Wealth Program.

## Endnote

<sup>1</sup> James D. Thompson and Ian C. MacMillan, “Business Models that Generate Societal Wealth by Creating New Markets,” *Long Range Planning*, forthcoming.

► This Communities & Banking article is copyrighted by the Federal Reserve Bank of Boston. The views expressed are not necessarily those of the Bank or the Federal Reserve System. Copies of articles may be downloaded without cost at [www.bos.frb.org/commdev/c&b/index.htm](http://www.bos.frb.org/commdev/c&b/index.htm).