

Using a Team Based Online *Business Simulation to Enhance the Teaching of Management Accounting in the Americas and Europe: Experience Talks*

Introduction

In the spring of 2011, 55 teams, from six universities in 5 very different countries on 3 continents participated in a 9 week joint online global business simulation. The partners were from Universities in El Paso, Texas Chile, Ireland, Guatemala and Trinidad. The objective was to enliven MBA Accounting for Managers and Accounting in General. Although most of the participants used this as an innovative way of teaching Management Accounting to MBAs or high level undergraduates, we also had students in International Business.

This presentation will describe the process used, the problems, the outcomes and the competencies developed. The participants will also be available to discuss the practical issues of including other teams within the BALAS network. A full set of PowerPoint's and a press article were included as appendices.

The Process

Students began with the preparation of a Strategic plan but were required each week to interpret a variety of accounting data including cost data, ratios and full financial statements. The students had to prepare a budget for their company and negotiate across the four countries to transact sales and purchases of goods. They also had to interpret changing economic data, project likely prices and ensure sufficient cash flow to maintain solvency. Finally students were judged by achievement as measured by equity but also were required to prepare a final report linking, strategy, data used and outcomes. As a bi-product students opened a Facebook site to facilitate their deals and communicate. This presentation describes the experience and lessons we learned from that simulation in the hope of expanding it to other countries and learning groups.

The Simulation

Globalsym was a mediated simulation played on the Web between live players who set the agenda. Globalsym simulations were usually run as part of a formal University (or equivalent) course or management/executive education program. It operates on the Globalsym Team™ central server in the USA with the parameters, algorithms, reliability and quality being initially set by contract with instructors but monitored by the simulation master and quality assurance group. This group also provides live online assistance to the players. Each group of 100 teams was assigned a named consultant who was available by Skype and email.

This was a Chilean simulation, designed by a Chilean Professor, who had his

original training at Indiana University, servicing clientele that crosses 9 time zones and 3 continents. These students were of many different ethnic origins and live in countries with very different economic profiles, yet the common use of the deal and accounting data together with social media brought us together. We hope to add more countries next year.

Key Dimensions of the Environment

Students competed against each other and not the computer. While there was a base algorithm, it was student decisions on prices, promotion, and production volume that set consumer market parameters. Globalsym assumed a common currency for operations (the Euro) with a second currency for speculation, bulk sales and other export/import transactions from outside the region. Globalsym was also an information rich environment in that students receive a background newsletter each period, highlighting coming events and economic trends. Students could also 'purchase', with game Euros, from a menu of consulting or market intelligence reports that provide items including average prices, production, effectiveness of various investments, etc. Students responded to a variety of external threats including inflation, political changes, legislative changes, security and other threats. Students also learn how to handle the problems, opportunities, and challenges facing a global company.

How did it work?

After reading the instruction manual, newsletter and consulting reports, students make a number of decisions including whether or not to sell to the consumer market, price, advertising, and production level, investments in manufacturing and financial moves.

Students from different teams could also make contracts with each other in order to buy or sell goods. Therefore there were unlimited opportunities for realistic negotiation and networking between companies and players either over the web or face to face. Once the first decisions were processed, the simulation provided feedback to student "executives" and the decision cycle begins again.

Just as in the real world, companies competed by producing and selling products in four countries in Europe. Students must make decisions relating to plant operations, distribution, sales, marketing, and finance. The challenge was to craft and execute a competitive strategy that results in great financial performance. There was a significant amount of financial and managerial data available which must be understood and synthesized but the students find it interesting and compelling.

Hardwired into the simulation was a requirement that teams negotiate with each other to acquire product or sell manufacturing output. The objective was to sensitize our students to the advantages and challenges of working as teams, working across time zones, and with their future competitors and partners. We were found the bonding process and decision making process among teams of different nationalities was a good replication of the global world at minimal cost.

A PowerPoint presentation on the simulation was attached together with an article on the simulation from AccountingWEB.com

Other Resources

1. We maintained a Facebook page at <https://www.facebook.com/GlobalsymMarket> for student trading and interaction. This was actually set up by one of our students.

FAQ

How was the winner determined?

The winner was the company that has the most Equity at the end of 9 periods. However, in terms of learning, we ask the students to write an initial strategy proposal of what they were going to do, and at the end they were to describe what happened including what accounting concepts and data were the most useful in making decisions.

The article I read said that students were to come up with a new strategy or adjust their strategy every week. Do you bring in real world events that affect the economy, such as Japan's situation?

There was a weekly newsletter that contains new events (copy attached) and was based on recent global events that were likely to be an economic impact in the Eurozone.

Anything else you would like colleagues to know about this project?

UTEP (the University of Texas at El Paso) was the first school in the US to organize a competition using this software. The University of Texas at El Paso's mission was to provide quality higher education to a diverse student population. Classified as a Doctoral/Research-Intensive university, UTEP seeks to extend the greatest possible educational access to a region which has been geographically isolated with limited economic and educational opportunities for many of its people.

Other information: I was been really excited about the way students, both here and in the other countries, rose to the challenge of making this work. It reflects the fact that accountants were to be global, intuitive and tech savvy. One of my students who was a manager at Target in El Paso and a former Marine, Arturo de la Mora Jr. [arturodelamorajr@hotmail.com] started a Facebook page to facilitate global deal making between companies (B to B)

<https://www.facebook.com/pages/Globalsym-Market-forum/182238895149582>

The students also told me they were usedd the Skype VOIP system to form new strategic alliances and friendship. They were formed strong bonds particularly with the Irish and Trinidadian students.

The instructors in all the countries really worked hard to make sure this new and innovative approach to teaching Management Accounting worked. We were all shared information to make this process more smoothly. You may wish to contact one or two of them. They were in alphabetical order:

1. Jose Antonio Lopez Gonzalez in Guatemala [jantolo@ufm.edu]
2. Howard Dottin in Trinidad [howard.dottin@gmail.com]
3. Bruce Kusch at BYU [KuschB@byui.edu]
4. Breda Sweeney at National University of Ireland-Galway [breda.sweeney@nuigalway.ie]



Using a Team Based Online *Business Simulation* to Enhance the *Teaching of Management Accounting* in The Americas and Europe: Experience Talks

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WHAT IS GLOBALSYM EURO?

Globalsym Euro is an online business simulation where students are assigned the task of running a company in a head-to-head competition against companies managed by other class members. Just as in the real world, companies compete by producing and selling products in four countries in Europe.

- Students must make decisions relating to plant operations, distribution, sales, marketing, and finance. The challenge is to craft and execute a competitive strategy that results in great financial performance.



Key subject areas covered in Simulation

- Strategy Development and Implementation
- Management Accounting
- Production Management
- Marketing
- Sales and Distribution
- Finance and Investment related decisions



Why use GLOBALSYM EURO Simulation

- Students learn by:
 - Doing.
 - Pursuing an objective.
 - Being wrong.
 - Working in groups.
 - Being helped.
- Globalsym Euro offers a safe environment, free of risk, that simulates a real world environment. It encourages experimentation, decision making, and the opportunity to live with the consequence of those decisions.



Overview of the simulation

Your company has to set up operations in three different countries (Austria, Italy, and Poland). These countries are the places where the company can produce and sell the products allowed by the simulation.

- Monaco, a fourth country is your Headquarters and acts as the “bank” for all the subsidiaries.
- Each country has different characteristics, i.e., size, customer needs, laws, political environment, cost structure, etc. You need to understand these in order to plan your strategy.



GENERAL ASPECTS OF THE GAME

Globalsym Euro has companies producing and selling DVDs and MP3s.

At the beginning of the game, teams should decide on a strategy for their company.

- After choosing country(ies) they want to do business in, teams should choose whether they want to be a Manufacturer or Retailer in each country.
- During each period, companies need to make decisions in different areas such as: Corporate Finance, Production, Marketing and Sales.



Globalsym Euro in brief

- European Union:
 - Italy
 - Austria
 - Poland
 - Monaco (Head Office)
- Currencies:
 - Euro (local currency)
 - Dollar
- Products:
 - DVDs
 - MP3s
 - Up to 3 possible models
- Key Question: Which model does each market prefer?
- The higher the model, the more complex and expensive it is to manufacture



NUIG Context

- Used as 20% assignment on 3rd year *Strategic Management Accounting* module of BComm (Accounting) programme
- Class size of 30 – divided into teams of 3
- Assessment based on
 - number of deals with non NUIG students (up to 5)
 - value of final equity
 - strategy of company each period
 - alignment between strategy and operational decisions of company
- Game operated for eight periods (finishes last week of term)



How it worked

- In advance of game Students read Globalsym manual
- Student access Globalsym news each Monday and read about economic and political events in each country
- First period – students choose initial configuration of company (manufacturing, retailing and which countries) and submit half page report outlining rationale for their chosen configuration
- Other periods – students make financing, marketing, pricing, production, sales decisions
- Period closes each Friday and results showing sales and financial information sent each Monday
- At end of game students submit final report



Weekly Cycle

- You enter your decisions;
- The game closes (deadline);
- A confirmation letter is sent to companies;
- Companies have six hours to make corrections;
- Simulation is run;
- Output is posted;
- A new version of Globalsym News is posted.

Manufacturing decisions and forms

- For manufacturers only
 - Build facilities
 - Manufacturing plant maintenance
 - Training
 - Production amount and model



BUILDING PLANT

	ITALY	
	DVD	DVR
Build plant	Yes <input type="button" value="v"/>	No <input type="button" value="v"/>



MANUFACTURING

	ITALY	
	DVD (EURO)	DVR (EURO)
Plant Maintenance	<input type="text" value="0"/>	<input type="text" value="0"/>
Training	<input type="text" value="0"/>	<input type="text" value="0"/>



UNIT PRODUCTION

DVD	ITALY	
Model	<input type="text" value="0"/>	<input type="text" value="0"/>
Manufacturing Order	<input type="text" value="0"/>	<input type="text" value="0"/>

DVR	ITALY	
Model	<input type="text" value="0"/>	<input type="text" value="0"/>
Manufacturing Order	<input type="text" value="0"/>	<input type="text" value="0"/>

Save

Marketing decisions and forms

For Retailers only:

- Number of Points of Sales to Open or Close

○ For Retailers and Manufacturers

- Price
- Advertising (# of ads) in Radio, Print (Magazines and Newspapers) and/or Television.
- Investment in Customer Service



POINT OF SALES

	ITALY
Open/Close	None <input type="button" value="v"/>
Number of POS to be opened or closed	<input type="text" value="0"/>



SALES PRICE

	ITALY	
	DVD (EURO)	DVR (EURO)
Lower model Price	<input type="text" value="0"/>	<input type="text" value="0"/>
Higher model Price	<input type="text" value="0"/>	<input type="text" value="0"/>



ADVERTISING

	ITALY	
	DVD (Ads)	DVR (Ads)
Number of Radio Ads	<input type="text" value="0"/>	<input type="text" value="0"/>
Number of Printed Ads	<input type="text" value="0"/>	<input type="text" value="0"/>
Number of TV Ads.	<input type="text" value="0"/>	<input type="text" value="0"/>



CUSTOMER SERVICE


	ITALY	
	DVD (EURO)	DVR (EURO)
Amount to be spent for	<input type="text" value="0"/>	<input type="text" value="0"/>

Save

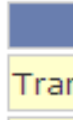
Financial Decisions (country level)

Capital transfer
Repatriate earnings to headquarters


- Short run investment
- Working capital loan

**TRANSFERS BETWEEN COUNTRIES AND HEADQUARTERS**

	ITALY
Transfer Type	None <input type="button" value="v"/>
Currency	None <input type="button" value="v"/>
Amount	<input type="text" value="0"/>

**TRANSFERS BETWEEN COUNTRIES AND HEADQUARTERS**

	ITALY
Transfer Type	None <input type="button" value="v"/>
Currency	None <input type="button" value="v"/>
Amount	<input type="text" value="0"/>

**INVESTING/BORROWING FROM THE LOCAL COUNTRY BANK**

	ITALY
Type	None <input type="button" value="v"/>
Amount	<input type="text" value="0"/>
Amount Interest rate	--%

Contracts between teams

In each country, companies can sell to each other through an industrial sales contract,

- Each sales contract requires an electronic signature (read the manual).
- Sales contracts should be completed using this form:

Industrial Sale Contract	
Period	1
Seller Company	1
Country of origin of the units	ITALY ▼
Buyer Company	0
Country destination of the units	ITALY ▼
Product Type	DVD ▼
Grade	0
Units	0
Currency	EURO ▼
Price per unit	0
% in cash	0
% to be paid in one period	0
% to be paid in two periods	0
Transportation	Normal ▼
Transportation paid by	Seller
Total transportation cost	0 EURO

Save

Income Statement CONSOLIDATED					
	Period 7	Period 6	Period 5	Period 4	Avg.Industrial
	EURO	EURO	EURO	EURO	
STANDARD SALES					
Consumer	12,467,725	12,316,510	7,349,750	1,451,025	5,164,134
Company Transfers	0	0	0	0	211,227
Industrial Sales	285,000				
Less Cost of Goods	6,186,560				
GROSS MARGIN	6,566,165				

Consolidated Balance Sheet CONSOLIDATED					
	Period 7	Period 6	Period 5	Period 4	Avg.Industrial
	EURO	EURO	EURO	EURO	
ASSETS					
Cash	16,868,586	9,968,994	8,063,410	3,364,440	8,246,218
A/R (1 more period)	7,435,271	8,149,878	5,782,733	5,303,678	4,325,326
A/R (2 more period)	3,740,318	3,694,953	4,454,925	1,327,808	2,336,140
Inventory	5,736,195	9,576,617	7,134,244	8,165,055	3,627,414
Investment in Marketable Securities	0	0	0	0	293,433
TOTAL CURRENT ASSETS	33,780,369	31,390,442	25,435,312	18,160,980	18,828,531
Plants	1,950,000	2,100,000	2,250,000	2,400,000	2,118,333
Inter-Company Investment/Hedge	0	0	0	0	0
TOTAL ASSETS	35,730,369	33,490,442	27,685,312	20,560,980	20,946,864
LIABILITIES					
A/P (1 more period)					
A/P (2 more period)					
Emergency Credit					
Area Bank Loans					
TOTAL CURRENT LIABILITY					
Inter Company Loans/Hedge					
HEAD Office Bank Loan					
Long-Term Bonds					
TOTAL LIABILITIES					
EQUITY					
Common stock at par					
Paid-In-Capital					

OPERATING EXPENSE	
Commercial and Admin	228,114
Advertising	28,000
Transfer	48,000
Inventory	201,270
Preventative Plant Maintenance	10,000
Post-Sale service	17,000
Human Resource development	5,000
Depreciation	150,000
Fixed Cost Manag. Plant	155,000
NET OPERATING EXPENSE	842,384
NET EARNINGS FROM OPER.	5,723,781

Cash flow period 7 to ITALY			
Currency: EURO			
Receipts		Disbursements	
Initial Holdings	9,778,144	Emergency Credit	0
Consumer Sales (cash part) (D1)	4,987,090	Commercial & Admin. Expense (Sales Team, Agents)	228,114
Local Bank Loan (D5)	0	Fixed Cost of Plants	155,000
Com! Government Securities payment IN, last period	0	Production Costs (cash part)	0
Inter! Interest on Bank Loan (D3)	0	Sales Expediting Expense	0
Misc! Account Receivable, for This Period	8,149,878	Reprocessing and Extra sale	0
Cost! Local Currency from Home Office(D3)	0	Inventory Cost	201,270
TOTAL	285,000	Transfer Cost	48,000
Loss! Services Payments IN	0	Exchange Commission to be Paid (D3 y T6)	0
GROSS	0	Local Bank Loan from last period (D3)	0
Inco! Foreign Currency sold	0	Advertising(D1)	28,000
Capit!		New Plants under construction (D2)	5,000
NET EA		Expenses (D2): Post-Sale service, Preventative Pl	32,000
TO RE		Investment in Local Bank (D3)	2,500
		Accounts Payable, for This Period	5,779,992
		To Home Office or Earnings Repatriation (D3)	70,000
		Purchases and industrials transfers (T3 y T4)	0
		Start of Operations (D0)	50,000
		Plants purchased (T5)	0
		Foreign Currency purchased	0
		Interest Paid	0
INITIAL HOLDINGS+RECIPIENTS	23,200,112	TOTAL DISBURSEMENTS	6,522,376
Balance			
Balance before Emergency Credit	16,677,736		
Emergency Credit, principal	0		
FINAL BALANCE FOR THIS CURRENCY	16,677,736		
Final Balance (in EURO)			
Total Cash Before Emergency Credit	16,677,736		
Emergency Credit	0		
Interest on Emergency Credit (to be Paid next period)	0		
Total Emergency Credit	0		
FINAL CASH (in Balance)	16,677,736		

Analysys Income Statement (RADIO) ITALY				
	Period 7	Period 6	Period 5	Period 4
	EURO	EURO	EURO	EURO
STANDARD SALES				
Consumer	967,725	2,316,510	3,150,000	490,725
Company Transfers	0	0	0	0
Industrial Sales	285,000	0	0	0
Less Cost of Goods	761,150	1,203,250	1,790,608	130,860
GROSS MARGIN	491,575	1,113,260	1,359,392	359,865
DELUXE SALES				
Consumer	0	0	0	1,575,000
Company Transfers	0	0	0	0
Industrial Sales	0	0	0	1,165,228
Less Cost of Goods	0	0	0	409,772
GROSS MARGIN	0	0	0	409,772
DELUXE SALES				
Consumer	0	0	0	1,575,000
Company Transfers	0	0	0	0
Industrial Sales	0	0	0	1,165,228
Less Cost of Goods	0	0	0	409,772
GROSS MARGIN	0	0	0	409,772
DELUXE SALES				
Consumer	0	0	0	1,575,000
Company Transfers	0	0	0	0
Industrial Sales	0	0	0	1,165,228
Less Cost of Goods	0	0	0	409,772
GROSS MARGIN	0	0	0	409,772
DELUXE SALES				
Consumer	0	0	0	1,575,000
Company Transfers	0	0	0	0
Industrial Sales	0	0	0	1,165,228
Less Cost of Goods	0	0	0	409,772
GROSS MARGIN	0	0	0	409,772

Output

- Balance Sheet
- Income Statement
- Management Information
- Cash Flows



Overall feedback

- Found to be challenging
- Complexity of task only understood by students after a few periods
- Interactive, practical and international elements really liked by students
 - 'Feels like it is a real business'
 - 'Love that it is a completely different project to what we have done before'
 - 'Like the fact that it is a real world application of things we learnt during the course. It is a very enjoyable way of learning'.
 - 'You have to learn from previous mistakes which is similar to real world'



What they said they learned

- Importance of having a strategy and following it
- Need to constantly update strategy
- Networking with companies
- Keeping a close eye on financing
(emergence credit automatically given if loans not taken out)
- Analysing financial statements



What they said they learned

- Impact of environment and economic factors on company performance
- How to work effectively in a team
- Importance of budgeting and giving full consideration to all costs and not just costs of production
- Importance of good information systems to keep records of decisions made



Aspects they disliked

- Wanted more immediate feedback than having to wait until following Monday to see impact of their decisions on sales and profits (suggested bi-weekly periods)
- Time difference resulting in problems closing deals (8 hours now allowed to close deals rather than 30 minutes)
- One group felt it should be an individual assignment
- Some confusion in first period over closing off of transactions
- Improvements need in some parts of manual to make it more specific (some confusion related to students not taking enough time to read all parts of manual)



Improvements suggested

- A system to allow chat and conversations between companies rather than using college email and facebook
- Immediate feedback so that impact of decisions can be seen (need to emphasise upfront the learning that takes place from waiting to see impact of strategy on sales)
- Record of decisions and inventory balances etc available on Globalsym

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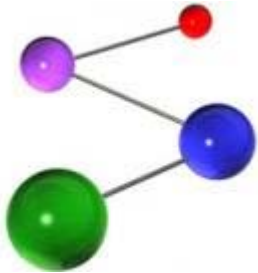
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Globalsym: International accounting students lock business horns in this fierce competition

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[1]

It's not often you find a heated contest between Texans and... the Irish. No, it's not sports, dancing celebrities, a weight-loss challenge, or politics. This competition involves bean counting and business know-how. Post graduate accounting students at the University of Texas at El Paso (UTEP) and third-year accounting students at Galway's National University of Ireland (NUI), are going head to head in an international business simulation. It's called Globalsym.

UTEP Professor Stephen Salter administers the program. He describes Globalsym as a mediated simulation, played on the Web between live players who set the agenda. This is usually part of a formal course through a university or equivalent or a management/executive program, said Dr. Salter. The program operates on the Globalsym Team central server in the USA, and the parameters, algorithms, reliability, and quality are initially set by contract with instructors. The competition is then monitored by the simulation master and a quality assurance group. This group also serves as a source of online assistance for the players. Teams also have a consultant available by Skype.

Dr. Salter's students have been participating in Globalsym since 2007. But, he added, the possibilities have been limited because previously the potential participants have been limited to UTEP students or UTEP vs. Chileans. For NUI students, this will be the first Globalsym competition.

"What is nice this time is that after years of hard work we finally have a working cooperative group of schools," said Dr. Salter. "This spring, we have students from the Arthur Lok Jack Graduate School of Business at the University of the West Indies in Trinidad [under the direction of Professor Howard Dottin], Universidad Francisco Marroquín Escuela de Negocios in Guatemala, National University of Ireland – Galway [under the direction of Dr. Breda Sweeney] The University of Texas at El Paso, Brigham Young University – Idaho." Dr. Salter added that the contributions of Professor Dottin and Dr. Sweeney were key in making Globalsym happen this year.

UTEP is the first school in the United States to organize a competition using this software. The school's mission is to provide quality higher education to a diverse student population. "Classified as a Doctoral/Research-Intensive university, UTEP seeks to extend the greatest possible educational access to a region which has been geographically isolated with limited economic and educational opportunities for many of its people," said Dr. Salter.

How the competition works

Students read the instruction manuals, newsletters, and consulting reports, and then make what should be rational, logical decisions about such things as product pricing, advertising, production level, investments in manufacturing, and financial moves. This year's simulation includes business operations in four countries: Monaco, Italy, Poland, and Austria. Teams choose one country to serve as their headquarters and decide in which of the other three countries – or in all of them – they will conduct business.

Students from different teams can also make contracts with each other in order to buy or sell goods. This allows for unlimited opportunities for realistic negotiation and networking between companies and players, over the Web or face to face. Once the first decisions have been processed, the simulation provides feedback to student "executives" and the decision cycle begins again.

This particular competition includes simulation for nine weeks, with up to three weeks of practice simulations. In the past, previous simulations at UTEP have ranged from six to 12 weeks.

Each week, participants receive a newsletter that contains news items based on recent global events that are likely to have an economic impact on the Eurozone, said Dr. Salter. Students use the information in the newsletters to adjust their strategies, the same way a real world business leader would do. For example, two currencies are used in the simulation, dollars and Euros. Students must pay close attention to global events that affect the exchange rate and evaluate the potential impact on their operations.

At the end of nine weeks, the winner is the team that has the most equity. "However," said Dr. Salter, "in terms of learning, we ask the students to write an initial strategy proposal of what they are going to do, and at the end they have to describe what happened including what accounting concepts and data were the most useful in making decisions."

Dr. Salter's students take this competition very seriously, using a variety of real world resources to gain whatever advantage they can. One student, for example, Arturo de la Mora Jr. started a [Facebook page](#) [2] which is used to facilitate global deal making between companies (B to B).

"I have been really excited about the way students, both here and in the other countries, have risen to the challenge of making this work," said Dr. Salter. "It reflects the fact that accountants have to be global, intuitive and tech savvy."

Professor Dottin (University of the West Indies at Trinidad) sees the simulation as helpful in opening economic horizons across boundaries of not just geography but also size. "Participating in Globalsym helps in minimizing the marginal mindset that could beset nationals of small emerging countries/economies."

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Source URL: <http://www.accountingweb.com/topic/education-careers/globalsym-international->

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