

Box-It, Inc¹

Casablanca, Morocco

Like most days, it was not difficult to explain the cause of the commotion in the building. Mr. Abdul, the president of Box-It, a corrugated carton manufacturer on the outskirts of Casablanca, had arrived several minutes before with an Italian consultant who had come to the country for his quarterly visit to the plant. But the anticipated arrival of Mr. Abdul's son, Hassen, known for his severe management style, was the real cause of panic. Shuffling back and forth, workers did whatever possible to appear busy, in many cases even repeating work completed earlier, which explains why the corrugater² was being oiled for the third time that day.

After a short walk around the plant, Mr. Abdul led the consultant into his office, closed the door, and turned around with a seldom seen look of despair on his face. "As you know," Mr. Abdul began, "we've had trouble remaining competitive. Our costs are just too high! I've been over this again and again with Hassen. He wants to build a new plant in order to make our own raw materials from recycled paper, claiming that we'll be able to lower costs and achieve economies of scale. Backward integration? I don't know. I'm too old to start over again. If we could just find an easier way to lower our costs, I would be much happier."

Pulling into his usual spot in the parking lot with the driver-side door open and his left leg hanging out, Hassen reached for his cellular phone and shouted, "Bring me the sales figures." (Exhibit 1) When the car finally came to a stop, he jumped out and with a running start headed toward the building. With one hand

holding the phone to his ear and the other fully extended, he shoved open the door and quickly climbed the stairs leading to his office.

By the time the secretary brought in the mail and messages, Hassen, in the presence of the Italian consultant and the finance director, was already in a disagreement with his father. It quickly turned into a tug-of-war.

Hassen said, "We need to create our own paper manufacturing plant! Over the last three months, the cost of raw materials has increased substantially. I'm not just going to sit here and watch us sink!" He moved swiftly toward the door, pulling the arm of the finance director and motioning him to leave with him. "Call the bank immediately," Hassen instructed him, "and ask them to approve the loan for this year!" "Okay," said the finance director.

"Wait a second," Mr. Abdul said, slightly angrily. "That's ridiculous. Come back, let's talk about this . . ." The Italian consultant nodded in support of what Mr. Abdul was saying. Moving to catch the two in the hallway, Mr. Abdul grabbed the free hand of the finance director. "Forget calling the bank!" he ordered. "Okay," said the beleaguered finance director.

But Hassen pulled the arm of the finance director more firmly while raising his voice. "No, no, no," he insisted. "Call the bank, bring me the proposal and let me talk to them."

"Okay," agreed the finance director, although he could be barely heard over the shouting.

Mr. Abdul clamped both hands firmly on the arm of the finance director and raised his voice to match his son's. "NO! Don't call the bank!" he shouted. The argument continued for another 30 seconds. Not knowing to whom to say "okay," and with his arms being pulled in both directions, the Finance Director's eyes began to bulge. Finally Mr. Abdul grew tired and slowly released his grip. He restarted calmly, "We'll never know if we're making the right decisions until we understand the nature of our costs."

The Italian consultant looked surprised, as if in his 20 years in business he had only seen this type of action in a classical Roman theater. Convinced that it was too late to make a run for it, he sat back in his chair and smoked a cigarette. The others composed themselves and sat down. Mulling over Mr. Abdul's comment about their need to understand costs, they thought about how to design a product costing system suitable to Box-It's operation.

a college degree would prevent him from entering the upper echelons of the U.S. multinational that employed him. Convinced nonetheless that the private sector offered the best opportunity for his family, and eager once again to be in a position of command, he founded a small cardboard transformation business⁴ in 1971 and ran it on a part-time basis. With the hope of making enough money to send his kids to foreign schools for a quality education, he was pleasantly surprised in 1975 when his business prospered. He was able to leave his job and once again become commander in chief, this time of his own operation.

Years passed, and the business and family grew. In 1992, Mr. Abdul's son, Hassen, returned to Casablanca after years of overseas study. Still awaiting the results of his final exams from his last semester at an American business school, Hassen arrived at the airport to an emotional family greeting. Mr. Abdul, proud to have his only son back home, led him by the hand to the car to drive him

to an undisclosed location. Hassen had been away three years, but though Casablanca had changed in the interim, it was hardly enough time for him to forget his way home. But Mr. Abdul took a different route, piquing Hassen's curiosity by purposely not explaining where they were headed. Speeding through the countryside, Mr. Abdul occasionally gestured to military and police officials standing at attention to salute him from the roadside. After 32 years he was still remembered by most people as Colonel Abdul, which brought a nostalgic smile to his face as he squinted and concentrated on the changing road conditions in the near distance.

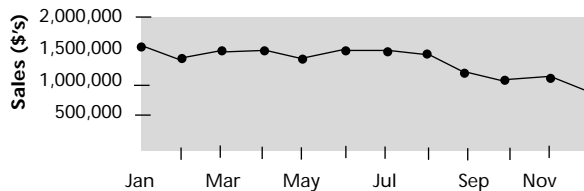
Quickly hitting the brakes as the road narrowed into a long gravel stretch marking the beginning of the industrial quarter of Casablanca, Mr. Abdul slowed so as to view the entirety of what was ahead. Workers were putting the finishing touches on a new 6,000 square meter

factory. On the second floor, in an office next to his father's, Hassen found a stack of business cards with his name and new title, Adjunct General Director. (Exhibit 2 presents the organizational chart for the business.) Hassen sat down in the reclining chair in his new office, determined to learn all he could about the corrugated cardboard manufacturing business. He resolved to begin running Box-It with one strategic objective in mind—not letting his father down.

Now, three years later, Hassen felt he had learned the business and could run it on a day-to-day basis. His father now spent most of his time downtown dealing

Exhibit 1
BOX-IT'S 1994 MONTHLY SALES
(in US dollars)

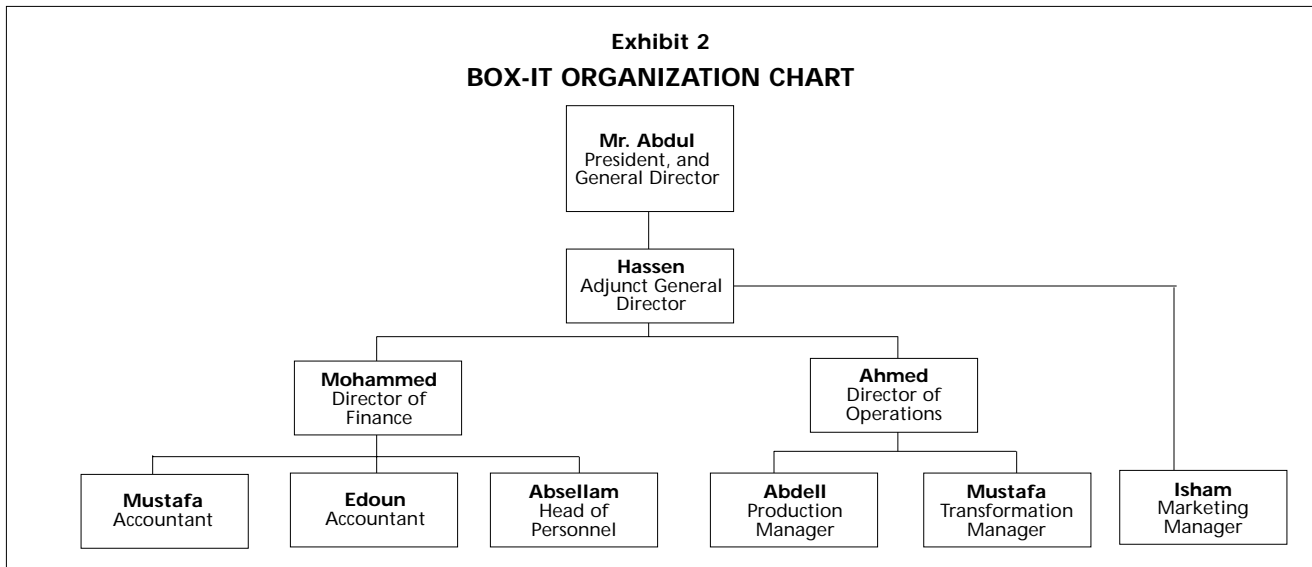
Jan	1,552,000
Feb	1,392,900
Mar	1,478,400
Apr	1,481,700
May	1,396,100
Jun	1,509,900
Jul	1,502,300
Aug	1,460,500
Sep	1,209,300
Oct	1,091,734
Nov	1,146,093
Dec	900,084



The Abdul Family and Box-It: A Brief History

Thirty-two years ago Mr. Abdul, then a well-respected colonel, left the military to start a career in the private sector. At the time he did not count on having to change his life so dramatically. After relocating his family from the imperial city of Rabat³ to join an oil company, working longer hours, and now taking orders from various middle-level managers, he wondered what else would change. Soon it became evident: despite his notable flair for doing business, his Moroccan nationality and lack of

Exhibit 2
BOX-IT ORGANIZATION CHART



with another part of the family-owned operation, leaving the company's operation in the hands of his son.

Corrugated Cardboard Manufacturing

Cardboard manufacturing consists of two main stages: production—converting/corrugating raw materials, and transformation—transforming semifinished product. There was also an optional third stage: finishing, technically a part of transformation, depending on the customer's needs. Photographs of the operation appear in Exhibit 3.

At the production stage, 1.5 ton paper reels are fed through a 1,500 foot-long corrugating machine operated by 17 employees. Following international standards, the corrugator produces cardboard containing three or five layers of paper with varying degrees of frequency in the middle corrugated layer. The number of layers, their respective weight and the frequency of the corrugations determine the strength of cardboard. Although rarely requested, boxes could be designed to resist as much as 3,000 pounds of external pressure. After being glued and pressed, cardboard passes through a two-system cutting process. First, manually calibrated scores (blades) cut lengthwise down the cardboard to trim off excess waste. Second, synchronized rotary blades at the end of the production line cut along the width of the cardboard to supply the quantity of flat cardboard sheets needed to fill an order. The resulting semifinished product is stacked in a reception area for transformation.

Cardboard transformation then occurs on one of ten machines, based primarily on the complexity of the customer's order. Each sheet of cardboard fed into a transformation machine passes over a die-cutter which stamps on a colored impression (usually a company

logo) and cuts the cardboard to precision for proper folding. Several of the machines are capable of transforming 10,000 boxes an hour. Before exiting the transformation stage, cardboard is either glued or stapled to hold its final box shape, although the final product is usually shipped to the customer in knocked down position (or flattened form) to save room during transportation.

Occasionally for customers without automated, on-site loading machines, knocked down boxes from transformation are passed through finishing, where they are converted into their upright box shape.

Finally, finished products are moved on palettes to the loading and shipping area for customer delivery or pick-up.

Designing a Product Costing System

Shortly after the visit of the Italian consultant, a meeting was called to determine how to obtain more detailed and accurate product costs.

CURRENT PRODUCT COSTING SYSTEM

Hassen and Mr. Abdul, seated at opposite ends of the table, started the meeting speaking at the same time. Half the table focused attentively on Mr. Abdul while the other half nervously faced Hassen. A week had passed since the tug-of-war in the hallway, but to the finance director, who still vividly recalled how he was literally pulled in opposite directions by the two men, this beginning was exasperating. Seated next to Hassen, he appeared ready to blurt out, "Please God, don't let it happen again!" After the initial confusion, however, Mr. Abdul gave way and motioned Hassen to proceed. Far from the topic of product costing, Hassen began talking angrily about a quality control issue: "This is intolerable, I won't stand for it. I can't afford to lose

Exhibit 3
BOX-IT PRODUCTION OPERATION



Machine corrugating and gluing paper to make cardboard sheets



Quality control team inspecting semifinished product at one of ten transformation machines



Transformation machine processing cardboard into finished product



Loading finished goods onto company vehicle for delivery

another client because of incompetent mistakes.” The truth was that the average quality control problem represented less than a 1% defect rate, a significant improvement due to the brilliance of the new director of operations, Ahmed. Prior to his arrival at Box-It, defect rates of ten percent had forced the company to produce large safety margins to fill each customer’s order. Poised to respond to Hassen’s comments, Ahmed leaned forward in his chair. But before he could speak, Hassen continued in a louder, harsher voice, “If you can’t do your jobs, I’ll hire someone who can! Just look out the window. There are plenty of people waiting to take your places.” Suddenly with a look of discouragement, Ahmed slouched back in his chair and took a deep breath.

Before getting much farther, Hassen was called out of the conference room to take a telephone call. The air seemed lighter and everyone appeared much more relaxed. Mr. Abdul continued the meeting and was only temporarily disturbed when Hassen called and asked if

he could see the finance director. As the finance director headed towards the door, Mr. Abdul said in a low voice, “Don’t spend more than five minutes with him.” Returning to the issue of product costing, Mr. Abdul spoke of the rising costs of raw materials, increased machine down-time, stagnant production, the loss of important clients and the overall need for a more reliable product costing system.

Until now, unit product cost, known only by Mr. Abdul, Hassen and the finance director, was determined by dividing total monthly expenses by monthly production levels (see Exhibit 4). Unit product cost always declined toward the end of the year because monthly expenses were recorded on a cash basis. No effort was placed on capturing cost differences stemming from different setup times or design phases, even though these clearly affected indirect labor costs. There was also no effort to track varying color/logo stamps or box complexity, even though these clearly affected ink, glue and staple consumption. In short, Box-It’s costing system treated all

boxes equivalently. This approach made Box-It's products the most expensive in the industry, since all boxes were sold at the same price, adjusted only for different paper raw material costs. In most cases, Hassen justified the high prices by pointing to constant increases in the cost of raw materials, Box-It's commitment to quality, and the firm's excellence in on-time delivery.

Customers kept fleeing, however, looking for lower cost producers. Finally a very large, well-known European multinational—Box-It's largest customer account—demanded that Box-It lower its prices. The customer claimed that many of Box-It's competitor's offered better prices and comparable quality and delivery times. Hassen could hardly believe his ears. How could any of his competitors sell at a significantly lower price? Convinced that Box-It was already selling at cost and afraid to incur substantial losses, he refused to reduce prices. He was, after all, aware that many firms used this type of bluffing technique to receive rock bottom prices and squeeze their suppliers. In a matter of days, though, reality struck a tough blow. The multinational

sent a letter stating they would no longer use Box-It as a supplier. Unlike losing other customers, the loss of this account brought an urgent need to reconsider Box-It's corporate strategy.

SETTING A NEW CORPORATE STRATEGY

Mr. Abdul and Hassen sat together discussing the impact of this lost account. The declining sales figures were worrisome, and both knew that the new year had to be different if Box-It were to grow. With vastly different ideas as to what needed to be done, Hassen leaned back in his chair and began discussing his ideas, which involved firing several people, extending operating hours to include Sundays and building a new facility to produce raw materials. "No, I won't require anyone to work on Sundays," responded Mr. Abdul with disappointment, as he seemed more concerned about the general direction of the company since the multinational account was lost. After many hours of discussion, a new strategy was determined and it became the subject of the annual meeting held two weeks later.

Exhibit 4
INCOME AND PRODUCT COSTING STATEMENT
(USED FOR FINANCIAL REPORTING AND INTERNAL MANAGERIAL USE)
(in U.S. dollars)

	Oct-94	Nov-94	Dec-94
Net Sales	\$1,091,734	\$1,146,093	\$900,084
Expenses			
Raw Material	739,960	735,423	514,699
Supplies	29,055	24,947	23,863
Gen/Adm	34,502	33,288	49,518
Taxes	2,442	2,438	2,439
Personnel	48,412	47,495	47,328
Currency (Gain)/Loss	0	28,750	0
Depreciation	84,498	85,089	85,066
Interest	65,000	65,000	65,000
Total Expenses	\$1,003,869	\$993,680	\$787,913
Income	\$87,865	\$152,413	\$112,171
Total Monthly Expense	1,003,869	993,680	787,913
Total Monthly Production	978,742	925,287	848,891
Unit Product Cost	\$1.03	\$1.07	\$0.93

Mr. Abdul began the annual meeting, attended by the sales/marketing staff and company executives, declaring, "Box-It's marketing strategy needs to be reconsidered." In agreement, Hassen interrupted with the following comments, which became Box-It's marketing strategy for the current year: "In fact, the year we're beginning is a year of marketing. That is to say, a year of large contracts which will allow Box-It to optimize its productive capacity, which is currently below potential. Box-It has already entered some of the toughest markets, which is proof that our marketing force is key to our survival. Our marketing objective consists of keeping our already well-founded relationships with certain clients and going to the next stage of development, while at the same time moving away from clients who cause us nothing but grief. With the experience we have now acquired, we can produce a new product aimed at low-end and middle-end customers. Our pricing policy will continue to consist of setting new prices as soon as costs change in the market."

The strategy required that the company develop and commit to new product costing methods to adjust prices quickly in the face of changing conditions.

THE NEW COSTING SYSTEM

The new costing system was laborious to develop, for it had to focus on activities performed rather than total monthly expenses, and this meant the internal accounting and reporting system had to be restructured significantly. When the idea of activity-based costing was first presented to Mr. Abdul in mid-February, he commented hesitantly, "Would a computerized pricing system based on monthly activity cost be too rigid for Moroccan consumers?" After all, Moroccans were not used to Western-style price tags with fixed prices. Instead, prices were usually negotiated at length until both parties agreed, often through a haggling process that could last hours. Mr. Abdul gathered his thoughts, then reared back in his chair and proclaimed his decision: "Regardless of how prices are negotiated in the market, we must develop a new product costing system. Even if market forces mean we occasionally sell at a loss, that's fine, as long as we know when we do it, and as long as we know what the overall impact is." The others nodded silently and began developing a project action plan, detailing meeting times, objectives, work groups and responsibilities.

A new emphasis on measurements from the factory floor and away from departmental estimates ensued as metering equipment was installed on all machines to measure material input and product output. Stop-watches were used to calculate setup times for each production order and cardboard was weighed at various stages of the production cycle to calculate glue, ink and staple consumption. The first draft of the study

revealed that two transformation machines were operating inefficiently and far below capacity. Several solutions were proposed, including the alternative of selling the machines and outsourcing. After the first six months, one of the accountants noted he had spent more time in the factory during the past six months than during his previous two years with the company.

Over time, each major cost-incurring activity of the company was examined (direct labor support, machine operation, shipping, product design and quality and general administration) with an eye toward how much it cost. Appropriate cost drivers, including direct labor dollars, machine hours, number of shipments and the number of production orders received, were determined for each activity and later used to apply overhead costs to products. Exhibit 5 presents that analysis and the proposed new overhead cost ratios.

THE RIPENED PRODUCT COSTING SYSTEM

Once the system was built, Mr. Abdul sat alone in his office reviewing the new product costing reports as the steamy August heat filtered through the window. He could now calculate costs using this new Activity-Based Costing (ABC) system and compare the results with numbers produced by the old method which had long served as the basis for setting prices charged to major clients. Using information from Exhibit 5, he realized that the ABC system reported lower cost allocations than had previously been charged to many Box-It customers, including the multinational account just recently lost, implying that Box-It could profitably lower prices. Happy with his findings, Mr. Abdul jumped to his feet to bring Hassen the results.

It was clear to him that this new product costing system could revolutionize the way Box-It conducted its business. Customers who called to place orders could immediately be quoted computer-determined prices calculated based on monthly activity-cost studies. These figures would be much more accurate than costs previously reported by the company's old costing system.

BACKWARD INTEGRATION INTO PAPER MANUFACTURING

Mr. Abdul's exit was interrupted by the director of operations, who entered Mr. Abdul's office to show him the plan for the proposed paper manufacturing plant—the one that had caused such disagreement between Mr. Abdul and Hassen. Mr. Abdul's complacent smile disappeared as soon as he realized what the director of operations held in front of him.

Eighty percent of the paper used in Morocco for cardboard production were virgin fibers imported from Europe. The remainder was recycled paper supplied by local producers. Hassen believed a recycled paper manufacturing plant could meet Box-It's needs for recycled

**Exhibit 5
OVERHEAD ALLOCATION (USING NEW, ACTIVITY-BASED COSTING SYSTEM)**

	Direct Labor Support Activity	Machine Operation Activity	Shipping Activity	Product Design & Quality Activity	General & Administration Activity
Overhead					
Maintenance	\$3,550	\$16,253	\$4,850	\$575	\$ -
Machine Set-up	0	5,956	0	0	0
Salaries	8,855	9,800	1,743	1,283	65,100
Depreciation	0	48,263	6,540	890	28,530
Scrap	0	6,212	0	0	0
Employee Benefits	3,005	19,850	842	360	13,070
Gen/Adm/Misc.	1,800	11,300	379	985	15,550
TOTAL OVERHEAD	\$17,210	\$117,634	\$14,354	\$4,093	\$122,250

Overhead Base*	24,612 DL\$	1755 Machine Hrs.	195 shipments	325 PO's	\$177,903 Value Added
Overhead Rate	71%	\$67.03 per hr.	\$73.61 per shipment	\$12.59 per order	68.7% G&A/Value Added

Product Costing Info.: Multinational Account	
Material Cost per unit	\$0.24
Direct Labor hrs./per unit	0.0035
Machine hrs./per unit	0.0028
Labor rate/per hr.	\$0.67
Volume	10,000
Shipments	1
Production Orders	1

Value Added Calculation
\$24,612 DL\$'s
\$17,210 DL Support
\$117,634 Machine Oper.
\$14,354 Shipping
\$4,093 Product Des & Qlt'y
177,903 Value Added

* Overhead base uses the following cost drivers: direct labor \$'s (DL\$), machine hours (Machine Hrs.), number of shipments (Shipments), number of production orders (PO's) and Gen/Admin as a percent of Value Added (G&A/Value Added).

paper and supply other companies in the country as well. Box-It would use 20-50% of its output and gain better control over paper costs. The plant would be 75% financed by a bank loan, and though an internal rate of return calculation suggested the plant might not be a good investment, Hassen felt strongly about the need for a reliable source of paper with prices under his control.

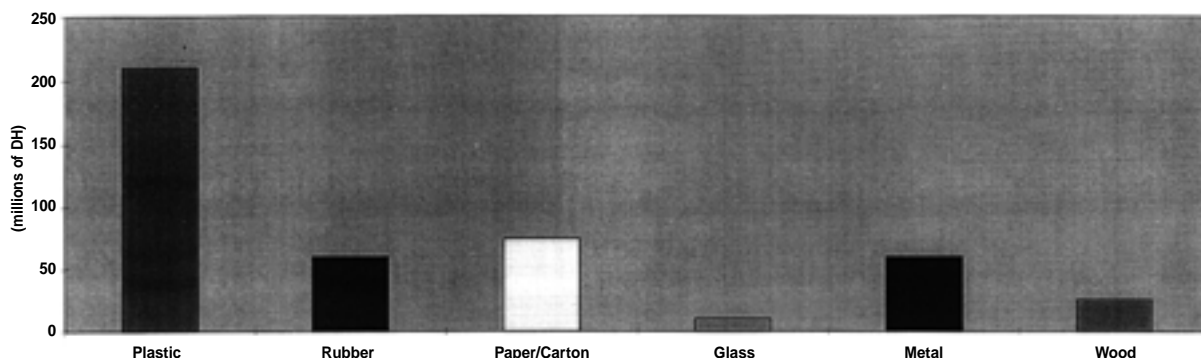
Returning to his desk and sinking in his chair, Mr. Abdul pointed to the gray in his hair and said in an agonizing

voice, "I'm getting old. I don't know if this is the right thing to do." Believing that Mr. Abdul was not asking his opinion but rather seeking his encouragement, the director of operations responded: "Paper manufacturing is the wave of the future. We'll be one of the first to do it in Morocco. We'll kill the competition."

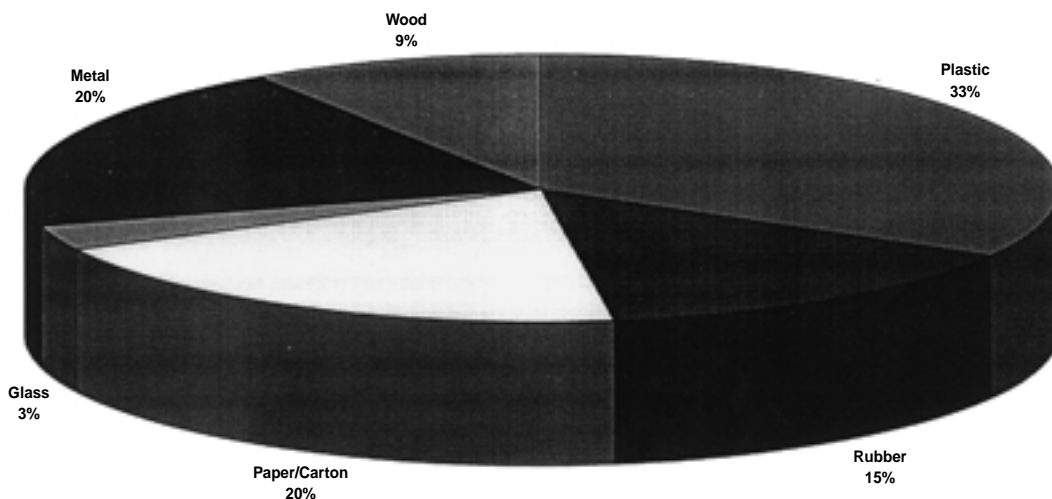
At the same moment in the adjacent office, Hassen was yelling into the phone. "I don't care about the building laws and your people's lunch hours. That's your problem! My problem is seeing to it that my raw material

**Exhibit 6
THE PACKAGING INDUSTRY: INVESTMENT AND OUTPUTS**

1992 Packaging Industry: Investment by Sector



1992 Percentage of Output by Packaging Sector



production plant is completed on time. The ground breaking crews will be here Thursday morning, and you'd better be here by noon!" Hassen, dreaming of running his own empire before he reached his father's age, turned his attention to calculating his staffing needs for the new production facility.

Study Questions

- (1) Discuss Box-It's competitive position and the impetus for an alternative costing system. Consider its likely impact on some traditional ways of Moroccan business.
- (2) Consider the order from the multinational that closed its account. Compare product costs for the order using information from both (a) the old cost system and (b) the new ABC system. Assume that the multinational had offered to pay \$.80 per box. Should Box-It have accepted this offer?
- (3) What are the benefits of the new ABC system?
- (4) How could the current financial reporting system be made more effective for managerial decision making?
- (5) What recommendations would you give to help Box-It improve the overall management of the firm?
- (6) Compare the income statement in Exhibit 4 with income statements prepared under GAAP. What are the differences and similarities?
- (7) What issues should Box-It consider before deciding to backward integrate into paper manufacturing?

- (8) Discuss other factors possibly affecting Hassen's decision to vertically integrate, as suggested by his final comments in the case.

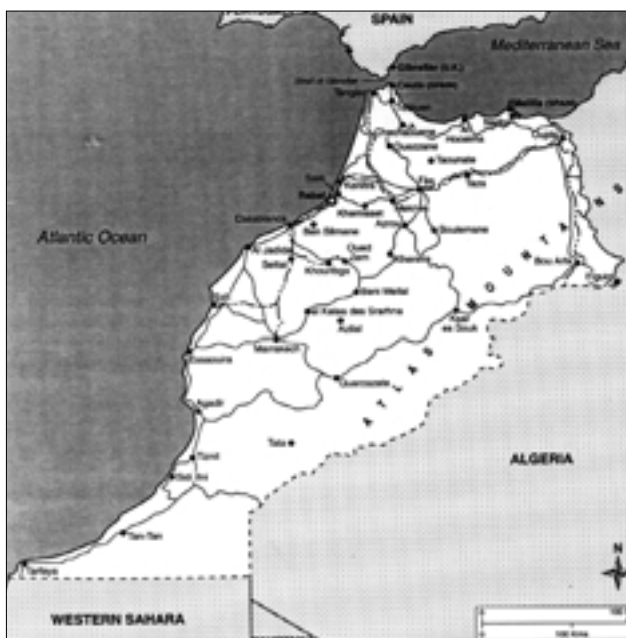
Appendix

Country Background

Geography

Situated in the northwest corner of Africa, the Kingdom of Morocco is about the size of California and is separated from Spain by the Strait of Gibraltar. Sharing borders with Algeria and the disputed area of the Western Sahara,⁵ Morocco in the Arabic language (El Magreb el Aqsa) means the extreme west of the Arab world. Morocco is dominated by the highest and most rugged mountain chain in northwest Africa, the Atlas Mountains. Encircled by the mountains are the coastal

Exhibit 7
MAP OF MOROCCO



plains and plateaus, home to Morocco's major cities. South of the mountains, Morocco melts into the hot Saharan Desert, sparsely inhabited by nomads on scattered oases.

History

Morocco's strategic location as a gateway to Europe gave rise to a series of invasions by early civilizations. Berber tribes, believed to be Morocco's first inhabitants, lost control to Muslim warriors in the early eighth century. Fighting off Arab rule and Islam, the Berbers remained a reckoning force until the 13th century. Other invasions followed, but by 1649, with the birth of

the Alouite Dynasty,⁶ Morocco became more united and stable than ever until the French Occupation.

Once again considered a gateway, this time to Africa, Morocco finished the 19th century fending off European interests. Several events proved Moroccan forces too weak to protect their national borders, including a Spanish victory in the Moroccan-Spanish war of 1860 and the 1888 Spanish proclamation that it was the protectorate of certain Moroccan cities. By 1900, France and Spain had made official agreements dividing the land. Spain's interests were primarily in protecting its own borders off the northern coast of Morocco,⁷ while France was more interested in expanding its colonial reign already present in Algeria and Mauritania (Morocco's neighbors). Other European powers were interested as well, however. Great Britain was ready to intervene, but when a German gunboat suddenly appeared off the southern coast of the country, an international crisis erupted. France prevailed eventually because of its settlements, and both Great Britain and Germany recognized Morocco to be within the French sphere of influence.

In 1912, when Morocco became a French protectorate, nationalistic sentiments abounded. Several rebellions were subdued, but France's exile of Sultan Mohammed ibn Arafa in 1953 led to violent protests. Weary from World War II and in desperate need to rebuild the country, France brought back the exiled Sultan and recognized Moroccan independence in 1956.

Economy

Historically Morocco's most important export industry both in tonnage and value is phosphate and phosphate-related products. In fact, Morocco is the world's third largest producer of these products and has the world's third largest deposit of phosphates. Generating only \$1.3 billion in 1990, however, the phosphate industry faced a new set of business conditions—volatile prices on the world phosphate market and a shortage of skilled workers, to name a few. Headed for disaster with unpredictable revenues and a labor force unable to keep pace with rapidly changing technology, Morocco turned its emphasis to its agricultural sector to circumvent the ill effects of this chemical extraction industry.

Like most developing economies, however, Morocco's 26.7 million inhabitants are overly dependent on agriculture. Agriculture employs 50% of the workforce and accounts for 16% of GDP. Principal agricultural exports include citrus fruits, fresh vegetables, dried peas, beans and olives. Hard hit by decreases in annual agricultural output, long drought seasons and a shortage of arable land, Morocco's weary agricultural sector has not been able to balance out the troubled phosphate industry; indeed, it is troubled itself. Concerns about the long-

CASE STUDIES

term viability of agriculture have reached the royal palace. This was demonstrated during a nationally televised event in early 1995 when His Majesty the King Hassan II asked God for rain, fertile soil and a replenished crop.

In recent years the importance of agricultural and phosphate products as a percentage of GDP has declined, as the government—with its break or bust strategy—aggressively sought ways to re-orient the economy. One major step in that direction is the privatization underway affecting 111 state entities valued at \$2.5 billion. Other examples include the textile and automobile assembly industries, which are emerging due to increased European demand for lower labor costs in manufacturing these products. Most of this demand comes from France, Morocco's largest trading partner, which purchased about 30% of Moroccan exports in 1992.

Packaging Industry

Morocco's packaging industry includes metal, wood, glass, paper/carton, rubber and plastic packaging manufacturers. It is composed of 345 primary manufacturers and several hundred secondary enterprises specializing in various levels of outsourcing, such as transformation of semifinished products and distribution to end users. The majority of firms are Moroccan-owned, but large profit potentials have attracted many neighboring European firms. Overall, the packaging industry accounted for 5% of industrial productivity, employed nearly 23,000 workers and contributed 5.7 billion dirhams⁸ to GDP in 1992. Most of the activity centered around plastic packaging. However, a five-year study published by SIPEC⁹ in 1995 suggested that the paper/carton sector is quickly evolving.

SIPEC '95 highlighted the fact that nine Moroccan carton/paper manufacturing companies serviced the local market and provided 85,000 tons of cardboard in 1992. A considerable number of secondary enterprises (especially transformation and printing outfits) are active in the market as well. Fifty-two percent of all raw materials used in cardboard manufacturing are imported from Europe. Cardboard production from 1988-1992 increased by 71%. Sales, investment and the number of persons employed in this sector all have increased significantly since 1988.

NOTES

1. This case was written by John Rountree of the University of Wisconsin-Madison. It is intended as a basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation.
2. Machine used to corrugate paper in the production stage of cardboard manufacturing. (See section on corrugated cardboard manufacturing and the photographs in Exhibit 3.)
3. In addition to being one of the four imperial cities of Morocco, Rabat is also the nation's capital.
4. Cardboard transformation businesses specialize in the transformation of semifinished cardboard sheets.
5. After Spanish withdrawal in 1976, Morocco claimed control over this area based on their territorial boundary in medieval times. The existence of considerable phosphate deposits also attracted Algerian and Mauritanian interests in controlling the Western Sahara. After 15 years of war, the United Nations proposed a cease fire agreement in which a referendum would determine Western Sahara's official status. The referendum date has been postponed and at the time of this writing has yet to be determined.
6. Morocco's 350-year-old Alouite Dynasty claims descent from the Prophet Mohammed. It is the oldest Monarchy in the Arab world, currently represented by King Hassan II who has been king since 1961.
7. Two Spanish enclaves in the north of Morocco (Ceuta and Melilla) still exist today under Spanish administration.
8. Dirhams are the official currency of Morocco. 8 dh = US\$1.
9. Salon International des Plastiques, du Caoutchouc, de l'Emballage, et du Conditionnement.