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EMBARKING ON E-BUSINESS AT DUCATI MOTORCYCLES (ITALY) [CASE STUDY]

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ABSTRACT

Following its 1996 liquidity crisis, Ducati, an Italian manufacturer of high-performance motorcycles, took several initiatives aiming at strengthening the company brand, enhancing its portfolio and increasing its sales and profitability. This case first presents the above initiatives and discusses how Ducati streamlined its production process and rationalised its distribution network. It then focuses on the company's e-business strategy and the capabilities offered by Ducati Internet web site. The key starting point of Ducati e-commerce activities took place on January 1st, 2000 when the limited edition of its MH900e motorcycle was exclusively sold through the Internet. It was the first motorcycle ever sold this way and the first year production of the MH900e was sold out after just 31 minutes, making Ducati one of Italy's largest e-tailers. The case describes the above pioneering e-business initiative and presents the way the company created the physical and the virtual "World of Ducati" (which contains motorcycles and motorcycle-related products and services). It concludes by highlighting future challenges that Ducati faces, mainly its attempt to solve the online/offline channel conflict and to build the first motorcycle Internet portal. The latter aims at offering content, context, virtual communities, and commerce (i.e. business-to-consumer, business-to-business, and consumer-to-consumer transactions).

1. DUCATI: COMPANY OVERVIEW

Founded in Bologna (Italy) in 1926, Ducati is a leading manufacturer of high performance motorcycles. Since the 1950s, its motorcycles have dominated the World Superbike Championship and compete in the sport sub-segment of the road market segment with engine capacities of over 500cc ¹.

¹ cc stands for cubic centimetre, a measurement for the motor cylinder capacity.

The motorcycle market is divided into four segments: the motor scooter market, the off-road market, the road market with engine capacities of less than 500cc, and the road market with engine capacities of over 500cc. The road market segment with engine capacities of over 500cc includes four sub-segments: sport, touring, dual and cruiser. Motorcycles in the sport sub-segment are built for, or inspired by racing. Those in the touring and dual sub-segments are designed for comfortable, long-distance travel and for both on-road and off-road riding. The cruiser sub-segment comprises heavy motorcycles with classic American design.

The four Ducati model lines differ in design, technical features and target customers. The most popular model line is the Monster (52.1% of revenues in 1999), followed by the Superbike (25.2%), the Super Sport (14.3%) and the Sport Touring (8.4%). The flagship product, Superbike, has gained much ground over the last 3 years. Besides motorcycles, Ducati sells parts, accessories and apparel in 40 countries worldwide, with a focus on Western Europe and North America. In 1999, these regions accounted for 85% of overall sales with the remaining 15% generated in Asia and Australia.

Ducati has a global distribution network. In Belgium, Italy and Sweden, it sells motorcycles and related products to its retail dealers directly out of Bologna. In other key markets (including Germany, France, Japan and the United States), wholly owned subsidiaries are responsible for Ducati's wholesale distribution. Ducati enhanced its control over key markets by increasing the number of subsidiaries, replacing underperforming distributors and appointing new distributors to enter new markets (such as Bahrain, Chile, Malta and Thailand).

In Italy, Ducati started restructuring its dealer network by turning dealer outlets into special Ducati retail outlets (called Ducati stores and Ducati corners). In the remaining countries, independent distributors function as intermediaries between Ducati Motor and retail dealers. In all markets (except Belgium, Italy and Sweden), dealers purchase Ducati products from subsidiaries or distributors and sell them to the final Ducati customer.

In 1983, Ducati became part of the Caviga group, an Italian manufacturing conglomerate. In September 1996, following a liquidity crisis at Caviga, Ducati Motor Holding (DMH) was created. Through a series of transactions, the US-based Texas Pacific Group (TPG) and Deutsche Morgan Grenfell Capital Italy² (DMGCI) acquired 51% of DMH. In July 1998, the remaining 49% of Caviga shares were purchased by TPG, which still owns 33% of Ducati Motor. All other shares are traded over the New York Stock Exchange and Borsa Italiana, the Italian stock exchange. Since September 1996, a turnaround programme has been initiated: Ducati increased its working capital to raise production levels, installed a new management team and hired 250 professionals world wide, rebuilt its sales, marketing and public relations departments, revamped its corporate image, streamlined its assembly process and introduced new models.

As of December 1999, Ducati's revenues totalled L570 billion³, an increase of 22.6% over the previous year. In the same period, registered motorcycles, a key measure of retail sales, increased by 17.7% to 32,135 units. The net profit was L17.3 billion⁴ compared to a loss of L2.4 billion in 19984 and a net profit of L5.2 billion in 1997.

Ducati mainly competes with four Japanese manufacturers (Honda, Suzuki, Yamaha and Kawasaki), two European manufacturers (BMW and Triumph) and, to some extent, with the US-based Harley-Davidson's "Buell Division". Within its specific business segment, Ducati's market share increased in 1999 to reach 6% of the Western European market. Japanese competitors have a greater market share worldwide, with Honda accounting for 26%, Suzuki for 23%, Yamaha for 17% and Kawasaki for 17%. Harley Davidson, BMW and Triumph have market shares of 5%, 4% and 2% respectively. Ducati estimates reaching a market share of 17% in Italy, 6% in the UK, 4% in North America, 3% in France and Germany, and a 2% market share in Japan.

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² DMGCI is the Italian subsidiary of Deutsche Bank's asset management and private banking arm.

³ On 31st December 1999, Italian Lire(L)1,000= Euro0.5165; L1,000 = US\$0.5186.

⁴ The 1998 loss was due to non-recurring, operating expenses of L16.9 billion caused by the write-off of debt issuance costs and cash settled for warrant rights to credit institutions that arranged prior financing. Ducati had no similar non-recurring expenses in 1997.

2. DUCATI'S BUSINESS STRATEGY

Since the 1996 acquisition, Ducati has been trying to increase its sales and profitability by broadening its product portfolio, restructuring its distribution network, strengthening its brand and raising production efficiency. Besides introducing new models, Ducati continuously upgrades its existing motorcycles through design and technical innovations, which constitute its main product differentiation.

The company's short-term aim is to increase the number of registered Ducati motorcycles worldwide by an average annual growth of 15%. To achieve this goal, Ducati decided to broaden the boundaries of its market niche by leveraging its brand name and by introducing new motorcycle-related products (such as accessories and apparel). In 1999, the sales of motorcycle-related products amounted to 4.2% of total revenues while motorcycle sales accounted for 86.3% (spare parts accounted for 8.3% and other miscellaneous items accounted for the remaining 1.2%). The company's short-term goal is to increase motorcycle-related sales to 10% of revenues. In 1997, Ducati restructured its distribution system with the goal of maximising retail sales and getting closer to the customer. Motorcycles, spare parts, accessories and apparel are sold worldwide via 800 independent privately owned dealers. The reduction of dealer outlets was one part of the turnaround programme that was started in Italy. Between 1996 and April 2000, the number of Ducati dealers was reduced from 165 to 61.

Ducati stores are exclusive Ducati outlets, selling motorcycles, spare parts, accessories and apparel. They offer a customised retail environment as well as an increased level of service and technical support. In the medium term, Ducati expects to set up about 200 Ducati stores worldwide. Today's 40 independent Ducati stores outsell the ordinary dealer outlets by significant margins.

Ducati corners are a compromise between the exclusive Ducati store and the ordinary dealer outlet. If the market is not big enough to justify setting up an exclusive Ducati store, a Ducati corner can be set up in a large dealer outlet offering a number of brands. Furthermore, the company introduced a Ducati store on its web site and started selling over the Internet with the introduction of the MH900e model.

Ducati increased its production efficiency by rationalising the manufacturing process and reducing complexity. The number of motorbikes made per production employee increased from 78 units in 1998 to 83 units in 1999. EBITDA⁵ also increased in 1999 by 24.3% to L98.3 billion, which is 17.2% of total revenues, one of the highest EBITDA margins in the industry.

3. THE "PHYSICAL" WORLD OF DUCATI

To strengthen its brand image, Ducati created the "World of Ducati" containing motorcycles and motorcyclerelated products and services. The core products, consisting of motorcycles, accessories and apparel, are complemented by six categories: Racing, Advertising, the Ducati Desmo Owners Club (DOC), Events, the Ducati Museum and the Ducati University⁶. Each category contains several sub-categories; for instance the "World of Racing" includes Sponsorship, a Hospitality unit, the Racing School⁷, Desmobid⁸, Racing Apparel, Technical Support and Sales. The single categories are inter-connected and are part of other categories (i.e. Racing is a category in its own right as well as being part of Advertising). Thus, the "World of Ducati" aims at strengthening Ducati's core products and image and thereby increasing Ducati sales and profitability.

⁵ EBITDA stands for earnings before interest, taxes, depreciation and amortisation.

⁶ Ducati managers and technicians give lectures world-wide at Universities and Polytechnics on Ducati and its products.

⁷ The Racing School teaches motorcycling at all levels.

⁸ Desmobid is a Ducati memorabilia auction on the Ducati web site.

3.1. Motorcycles and Complementary Products

Ducati started several production initiatives aiming at reducing production costs and improving the underlying process. In January 1999, it introduced a production software that monitors the information flows from receipt of the customer order to the delivery of the motorcycle. Through customised material requirement planning (MRP) capabilities, the system automatically generates production schedules based on sales forecasts, optimises warehouse volume levels, generates orders for purchasing materials and manages flows of materials for production.

Another Ducati production initiative is the implementation of the "platform" approach, through which suppliers become responsible for delivering the key motorcycle components and managing their own subcomponent providers. This reduces the number of suppliers, increases the volume of components provided by each supplier and thereby strengthens Ducati's bargaining power. Since several motorcycle models share common components, Ducati is able to maintain efficiency even at relatively low volumes. "We outsource 85% of our production cost," says Christopher Spira, Head of Investor Relations. "Our factory could be anywhere. We are an assembly plant, an R&D centre and a design centre. We also have a large commercial area and a PR [public relations] operation. We have outsourced all of our logistics."

Today, Ducati essentially focuses on designing and assembling engines and motorcycles, and testing their quality. As a result, the fixed cost structure is relatively low. Direct and indirect labour costs amount to 15% of total costs incurred. Due to production initiatives, the daily rate of Ducati motorcycle production increased from 25 in September 1996 to more than 200 in May 2000. In order to reduce the number of key motorcycle components, Ducati tries to co-develop new components with its key suppliers. For the next 3 years, 59 platform projects are planned that will optimise production and involve outsourcing non-strategic activities.

In 1999, sales of spare parts accounted for 8.2% of total sales, compared to 8.3% in 1998 and are among the highest margin products sold by the company. The spare parts catalogue and order processing are managed electronically. By December 1999, over 93% of all spare part orders were fulfilled in Europe within 48 hours of receipt, and within 72 hours in the rest of the world. Logistics are outsourced to Saima Avandero, an Italian logistics company that is responsible for the physical movement of the spare parts, their storage and the automation of the Ducati spare parts warehouse.

In order to personalise the Ducati motorcycles, Gio.Ca.Moto designs and distributes performance and custom-made accessories, such as specialised exhaust systems, fenders, fairings and custom-painted gasoline-tanks. These accessories and apparels have high margins. Since 1998, Ducati Gear has been providing Ducatisti⁹ with technical riding gear. Leather racing suits, jackets, gloves, boots and helmets are developed and produced in co-operation with Dainese. Ducati T-shirts, caps and memorabilia are also commercialised.

In the future, Ducati intends to focus its activities on the motorcycle-related business, enriching the "World of Ducati" with the licensing of motorcycle model replicas, toys, video games and "online" racing, allowing fans to "virtually" compete with each other through the Internet. Such activities aim at increasing Ducati brand awareness among the general public and also creating additional revenue streams.

3.2. Racing

"Ducati has won eight of the last ten World Superbike Championship titles and more individual victories than the competition put together." 10

⁹ Ducatisti are Ducati employees or Ducati fans owning a Ducati motorcycle.

¹⁰ Ducati press release of January 31st, 2000, Bologna.

Racing helps Ducati to enhance the company image and to increase the demand for its products. The components of the "World of Racing" are sponsorship, hospitality, the Racing School, the online auction "Desmobid", technical support and sales as well as racing apparel.

In October 1998, Ducati created a subsidiary, Ducati Corse, exclusively involved in racing activities. Besides its track winning objective, Ducati Corse aims at leveraging Ducati's technological racing expertise into commercially oriented applications. It supports the Ducati team as well as other racing teams with technical knowledge, racing apparel, specialised motorcycles and engines. In 1999, costs amounted to L20 billion lire compared to L17.5 billion in 1998. Revenues from sales and sponsorship increased from L6.5 billion in 1998 to L13.4 billion in 1999, covering 67% of racing costs in 1999, up from 37% in 1998. Through the racing success of Ducati motorcycles, Ducati has enjoyed high visibility in the media and demonstrated the high performance characteristics of its motorcycles.

3.3. Advertising

In order to establish Ducati as a global brand, a universal, homogeneous marketing strategy was introduced after the 1996 acquisition of the company. A new corporate identity was created through standardising the corporate logo and lettering as well as the promotional and marketing material. In order to reinforce the brand, Ducati only advertises in the sector press. The first global advertising campaign, which featured company employees, attempted to communicate authenticity, simplicity, consistency and the uniqueness of the Ducati brand. Furthermore, the "non-sector press" (including the New York Times, the Wall Street Journal, the Financial Times, and CNN) published articles on Ducati. Advertising is also fostered through the Ducati web site, which is available in Italian and English; in March 2000, it received on average more than 150,000 hits a day. About 17,000 fans subscribed to the racing site in order to receive timely press releases and racing results. The Ducati Owners Club site had 20,000 users, after just three months of operations. Furthermore, co-marketing is carried out with other major international brands such as Sotheby's (the international auction house), DKNY (the American fashion company), and Harrods' of London. Ducati motorcycles were also featured in several films and British television series.

Over 400 Ducati clubs exist worldwide linking up the *Ducatisti*. The company sponsors some of the club activities such as the World Ducati Weekend, which took place in June 2000 at the Misano racetrack, enabling people to race, visit the Ducati factory and the museum in Bologna. Ducati also created the Ducati Desmo Owners Club with its DesmoCard as well as the DesmoNet, Ducati's extranet, connecting dealers with each other and with the factory.

3.4. The Ducati Desmo Owners Club (DOC)

"DOC was a dream; now it's a reality. We want to build it up together with all our Ducatisti friends to make it the main point of reference for *fans of the Desmodromic [motor] bike.*"

In 1999, the Ducati Desmo Owners Club was set up in the physical as well as in the virtual online world. Ducati Motor founded the club with the aim of inter-linking members and their interests: their enthusiasm for riding Ducati motorcycles and opportunities for entertainment under the Ducati trademark. The Club is a non-profit organisation; any *Ducatisti* can join it by filling in an application form.

Joining DOC allows members to make new friends, participate in club events and benefit from exclusive services. Since January 1999, the DesmoCard, which is free of charge, has been giving new Ducati owners special discounts on Ducati merchandise, "Superbike Championship" tickets and hotel rates world wide. Furthermore, Ducati stores and the DOCs' web site provide "member-only" sections offering DOC activities.

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¹¹ Frederico Minoli, source: http://www.DucatiDOC.com.

4. THE "VIRTUAL" WORLD OF DUCATI

"We want to put a virtual layer on the real World of Ducati," Christiano Silei, General Manager of Ducati.com.

The goal is to build the "World of Ducati" online and to reinforce the Ducati brand. Ducati plans to enhance the existing homepage, which currently mainly delivers content, and create "Ducati.com tomorrow". In the near future, the site is expected to offer electronic commerce capabilities, host virtual communities and provide motorcycle-related content, entertainment and financial services. Furthermore, the site will offer the opportunity to set up a personal homepage and to bet on motorcycle races.

4.1. "Ducati.com Today"

Today, Ducati.com serves as an umbrella for several other Ducati sites, such as DucatiDOC.com, Memorabilia.Ducati.com, DucatiCorse.com and DucatiStore.com. It focuses on the content of the Ducati products, services and news. *Ducatisti* can apply online for membership to the DOC; customers can find addresses for technical services and individuals searching a job at Ducati can send their CV online. Ducati fans can also communicate with the company and send suggestions regarding the company web site and products through the web site.

Content

"Ducati.com today" contains information on the company, its motorcycles, accessories, apparel, spare parts, stores and dealers, races and the museum. Each of its four motorcycle model lines and the MH900e are visually presented along with their technical data, new features and the service provided by Ducati. The virtual Ducati store supplies information on the nearest physical Ducati store and the complete range of motorcycles, clothing and accessories for customising a Ducati motorcycle. It encourages clients to call or visit their local dealer and provides information on how to become a Ducati dealer. The visitor can also access information on the Ducati brand, current events and the latest news (e.g. the inauguration of a new Ducati store, new products, etc.). Ducati Corse provides racing-related content, but does not yet broadcast races over the web.

The web site also offers information on the company's history and the latest news as well as having an investor relations section. Investors or visitors to the web page can look up the press releases or subscribe to its mailing lists. They can find financial data on Ducati and its stock performance, which is updated every 20 minutes.

Commerce

"Ducati.com today" only offers limited e-commerce capabilities. In the business-to-consumer (B-2-C) e-commerce category, the web site supported the online sale of the MH900e and the launch of the Desmobid, but not that of other motorcycles, accessories and apparel. Business-to-business (B-2-B) e-commerce initiatives only account for the Ducati DesmoNet. The site still does not offer any consumer-to-consumer (C-2-C) e-commerce service.

B-2-C

The unexpected success of the MH900e

In 1998, Ducati presented its MH900e prototype at the *Intermot* motorcycle show in Munich. MH are the initials of Mike Hailwood, who rode Ducatis and dominated the Gran Prix from 1958 until 1967. Since the MH900e press reviews were very positive and people the world over were requesting the product from Ducati, the company inserted a questionnaire on its web site for 2 weeks to figure out whether fans would actually buy the hand-crafted MH900e. 300 *Ducatisti* responded positively. "The press was so enthusiastic that Federico Minoli and Massimo Bordi [General Manager of Ducati] decided to go into production,"

recalls David Gross, Director of Strategic Planning. Federico Minoli decided to produce a limited edition of 2,000 MH900e units and to sell it online at a unit price of Euro15,000 starting on January 1st, 2000 at 00:01 a.m. It was the first motorbike ever to be sold exclusively over the Internet, although it was to be delivered through the dealer network.

When ordering the MH900e, customers had to identify the nearest dealer to their location and give their credit card details. Upon checking the availability of funds, the order was transmitted to the selected Ducati dealer who could either accept or reject processing it¹². If he accepted to process the order, the customer's credit card was charged 10% of the MH900e price (i.e. Euro1,500). A confirmation reference number was assigned and the client was added to the official MH900e owner registry. Afterwards, the Ducati dealer sent the customer the purchase agreement and informed him/her of the delivery status and the final price. Customers can track their motorcycle order status through the MH900e owner registry that is available online.

If the customer cancelled his purchase order within 5 days of its placement, he got his full 10% deposit back. Past this deadline, no refund is made. The remaining Euro13,500 are to be paid upon delivery. The company plans to deliver the first 10 motorcycles as a special event during the World Ducati Weekend in June 2000. Normal delivery through dealers started in the summer of 2000.

Since several MH900e features are not yet defined, the production cost and the final dealer commission are not fixed, although the dealer's commission will be less than the average one received on a normal Ducati. Approximately 1% of all dealers to whom MH900e orders were forwarded rejected them, although all of what the dealer has to do as a final check is to set the mirrors, deal with the registration documentation and hand over the keys to the owner. "I think it's fair to say that the dealers' effort is minimal," explains Cristiano Silei. "For them [the dealers], it's a no-brainer. They receive a margin, but they have no inventory risk, no advertising cost nor marketing cost. We take care of all that at [Ducati] headquarters through our PR effort."

The pricing policy is innovative since firstly, the retail price is the same throughout the world (although the final price varies according to taxation, shipping fees, set-up charges, insurance and registration). Secondly, it is the first motorbike to be priced only in Euro.¹³

Besides the few dealers who ordered the MH900e, most purchases were made by individuals from 20 different countries, including New Zealand, Singapore, Portugal, US, Turkey, Spain and Sweden. 30% of the customers are from Europe, 30% from the US and 39% from Japan. By selling the MH900e through the Internet, Ducati was not aiming at taking business away from the dealers, but rather at attracting new customers and helping bring more business to the dealers.

Although the MH900e production did not start before June 2000 (at a daily rate of five to six units), the first year's production was sold out within 31 minutes¹⁴ of the year 2000. A catalogue is currently developed to customise the MH900e. Customers are passionate about Ducati and they put their trust in the brand to the extent that they are willing to leave a deposit of Euro1,500.

The online memorabilia auction

The memorabilia auction web site, called Desmobid, gives fans all over the world the opportunity to acquire Ducati motorcycle parts that were used and signed by a racing champion and to make a virtual visit of the Ducati racing box. The idea originated from enthusiasts coming to the Ducati box after a race and asking if they could have a valve, a piston or a fairing that had been damaged during the race.

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¹² In case of a dealer rejection, the customer had to search for another dealer.

¹³ The Ducati web site offers the service of an online Euro conversion. Potential customers can thus find out the exchange rate of the Euro for their currency.

¹⁴ The remaining units of the limited edition that will be produced in 2001 were sold out in the following weeks.

In order to bid, *Ducatisti* must first register, which is free of charge. This gives them a password and an identification number. The memorabilia merchandise is divided into two categories: "SBK Bikes Memorabilia", used at the World Superbike Championships, and "Museo Ducati Memorabilia", which contain collectors' items.

• B-2-B

The Ducati DesmoNet TM

In order to better control customer order management, to facilitate information exchange between sales outlets and headquarters, and to offer an improved customer service, Ducati has introduced an extranet service called DesmoNet™. It links Ducati stores with one another and with Ducati's headquarters. DesmoNet was introduced in Italy at every Ducati store and will be set up during the year 2000 in other European countries (including France, Spain and the UK), starting with subsidiaries and distributors. The staff at Ducati dealer outlets, many of them in their late 50s and not accustomed to working with computers, often refused to use DesmoNet although training was given. Since Ducati headquarters can monitor the use of DesmoNet by users, feedback is given if usage is too low. When running out of a certain item, it is possible to check whether a near-by dealer has it in stock, in which case the part can be quickly transferred.

The DesmoNet provides headquarters with real-time information, which serves as a basis for generating sales reports, optimising stock, developing new services and distributing marketing questionnaires to the dealers to "feel the pulse" of the market. Customers can use the DesmoCard to receive information from any dealer regarding their motorbike (including repairs made), as all information is stored on a computer system.

Virtual community

The Ducati virtual community is still in its early stage. The initiatives taken by Ducati.com today are limited to the Ducati Owners Club and the online auction Desmobid.

The virtual Ducati Desmo Owners Club (DOC)

DOC's web site (DucatiDOC.com) links Ducati headquarters with Ducati Clubs and individual *Ducatisti*. At present, the web site contains an introduction to DOC, information on their affiliates, rides and tours, the latest news and DOC events. It also contains an online application form and the articles of association. There is no section exclusively dedicated to members. In the "Rides & Tours" section, *Ducatisti* can describe their travel experiences, report on their routes, areas of interest and even post photos of their trips. A special Ducati team manages the DOC's web site, plans visits to the Ducati factory and museum, and helps organise DOC events and activities.

4.2. "Ducati.com Tomorrow"

"We believe that, thanks to the wild success of the MH900e, the first motorbike ever to be launched and sold over the Internet, the Internet will become a strategic tool in the future growth of the Ducati businesses." Ducati.com tomorrow aims at becoming a vertical Internet portal dedicated to the Ducati lifestyle and the world of motor racing. It is the first initiative of its kind in the motorcycle world and will be based on the four "Cs": i.e. content, commerce, community and context. The functions of the current web site will be enhanced and new functions, such as C-2-C activities, will be added. Furthermore, Ducati set up in Bologna a separate unit from Ducati Motor dedicated to building "Ducati.com tomorrow". The new venture plans to hire 15 e-commerce and Internet professionals during the start-up phase, in addition to its current staff of 15 employees.

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¹⁵ Frederico Minoli, Ducati press release, 6^{th} March 2000, Bologna.

Content

The future web site is intended to build on the content delivered by "Ducati.com today" and to broaden its information scope. There are plans to expand the existing content with motorcycle reviews, pricing, racing games, trip planners, technical tips, a maintenance reminder, a Ducati newsletter, competitions and product comparisons.

Commerce

Ducati intends to enhance the different categories of its e-commerce applications (i.e., B-2-B, B-2-C and C-2-C). An important feature of B-2-B will be the trading of second-hand motorcycle parts. Cookies will be used to analyse the behaviour of site visitors and derive knowledge about Ducati's markets and products. However, the integration of the e-commerce applications within the legal systems and databases constitutes an important challenge for Ducati.

B-2-C

"We will use the Internet to reach out to customers [whom] we wouldn't have been able to access otherwise", Cristiano Silei.

Ducati's e-commerce strategy is to use the Internet to promote and sell only limited editions of its motorcycles rather than all of its product lines. Furthermore, Ducati aims at selling services, accessories, apparel and spare parts through the Internet. Products sold online will be different from those offered at dealer outlets, in order to avoid competition. For Ducati, expensive items (such as leather suits) are difficult to sell through the Internet. However, they will be displayed online in order to refer customers to their local dealer outlet, where they can try them on and buy them. Thus, the web site, Ducati.com, complements the existing dealer network while providing convenience to potential customers. "It [our Internet strategy] keeps dealers very much in the loop," comments Cristiano Silei. "It brings new clients to them and makes the dealers feel that they are very much part of all these business initiatives."

The range of online financial services that Ducati provides to customers will include insurance and product financing. The company sees itself at an early Internet stage where several strategic decisions still need to be made. Motorcycle fans will have the opportunity to use the online ticket counter for buying tickets and betting on races. They will also be able to book tours and courses at the Ducati racing school as well as rent bikes over the Internet.

B-2-B

Business-to-business e-commerce will be done through DesmoNet. Eventually, purchasing will be electronic. B-2-B will have similar functions to those available through B-2-C, including the sales of motorcycles, spare parts, accessories and merchandising. It is expected to increase product availability. Financial services in the form of investment aids will be offered to the retail system. Furthermore, second-hand motorcycles will also be sold through the Internet.

C-2-C

Ducati's customer-to-customer e-commerce will consist of selling memorabilia and trading second-hand items such as used motorcycles, spare parts, apparel and merchandising. Through its C-2-C offering, Ducati aims at strengthening its community of Ducati users and fans.

Virtual community

Through the Ducati.com virtual community, Ducati hopes to develop the company brand and attract new customers. Ducati.com will offer chat lines to its motorcycle fans, a message board, fun and games, information for investor relations, special DOC activities, affiliate and referral programmes. Furthermore,

club members can access the Ducati virtual community through the dealer channel and DOC organisers, and are provided with resources in terms of dealer staff and Ducati products.

Context

"Ducati com tomorrow" will offer Ducati customers and non-customers the option of setting up their own web site. In addition to having a personalised home page, they will be able to have their own mailing system. Ducati encourages Ducati fans that set up their own homepage to collaborate with the company. Ducati can offer them access to the company logo (with the correct dimensions and color) and customers can provide other fans with information, e.g. about their Ducati experience.

5. OUTLOOK

The Internet penetration rate in Italy is one of the lowest in Western Europe. As of June 1999, only 9% of the 57 million population¹⁷ used the Internet. However, in spite of this factor, Ducati plans to continue investing in its new e-business venture and to expand the "World of Ducati" both in its physical and virtual dimensions.

6. LESSONS LEARNED

- (1). The risky decision taken last year by Ducati to exclusively sell through the Internet its MH900e motorcycle model turned out to be a major success. It emphasises the importance of entrepreneurial leadership when embarking on a bold e-business strategy.
- (2). The Internet can be a powerful competitive weapon for selling not only low-price commodity products and services, but also premium price items (such as Ducati motortcycles) that traditionally required customer inspection and trial.
- (3). In order to resolve the online/offline channel conflict, manufacturers need to rethink the business model and define a new win-win relationship with their traditional dealer network.
- (4). IT-based innovations such as the one at Ducati demonstrate the strong impact that e-commerce can have on the industry structure and on the company's market share.
- (5). By creating new business opportunities and platforms, e-commerce helps a company rethink its core competency and, thus, its future industry positioning.
- (6). Success in the digital economy will go to those companies that create value by leveraging the Internet and can execute clicks-and-mortar strategies, which bridge the physical and virtual worlds.

TEACHING NOTE

Case Summary

Following its 1996 liquidity crisis, Ducati, an Italian manufacturer of high performance motorcycles, became part of the Texas Pacific Group and of Deutsche Morgan Grenfell Italy. It then took several initiatives aiming at strengthening the company brand, enhancing its portfolio and increasing its sales and profitability.

The case study first presents the above initiatives and discusses how Ducati streamlined its production process, reduced the number of its dealers and replaced under-performing distributors by company-owned subsidiaries. It then focuses on the company's e-business strategy and the capabilities offered by Ducati's Internet web site.

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¹⁷ Sources: CIA World Factbook, July 1999; InternetNews, June 1999.

The key starting point of Ducati's electronic commerce activities took place on January 1st, 2000 when the limited edition of the hand crafted MH900e motorcycle was exclusively sold through the Internet. It was the first motorcycle ever to be sold this way and the first year production of the MH900e was sold out after just 31 minutes, making Ducati one of Italy's largest e-tailers.

The case also describes the above pioneering experience. It then presents the way the company created the physical and the virtual "World of Ducati" (which contains motorcycles and motorcycle-related products and services). It concludes by highlighting the future challenges that Ducati faces, mainly its attempt to solve the online/off-line channel conflict and to build the first motorcycle Internet portal. The latter aims at offering content, context, virtual communities, and commerce (i.e. business-to-consumer, business-to-business, and consumer-to-consumer transactions).

Pedagogical Objectives

- To analyse the business opportunities and risks that a manufacturer faces when embarking on electronic commerce.
- To demonstrate how a manufacturer can exploit the Internet capabilities along four dimensions: context, content (by providing customers with information on the company and its products), commerce (by offering business-to-consumer, business-to-business and consumer-to-consumer transaction capabilities), and communities.
- To show how to best leverage a company's brand by enhancing its product portfolio, forging strategic alliances, and introducing new products and services.
- To illustrate how a manufacturer can directly sell its products through the Internet and reconcile its online sales with the business functions traditionally performed by its dealer network.
- To discuss how a manufacturer can manage and leverage the physical and virtual chain of its activities to add value to its products and services, attract new customers and win loyalty.
- To analyse how in general (i.e. beyond the case of manufacturers) a company can solve the online/off-line channel conflict.

Potential Teaching Audience

Due to its general management approach and its business focus, the case is suitable for a variety of courses in such areas as e-business/electronic commerce, marketing, business policy, operations/service management, and information systems/technology. This case is developed mainly for participants in an MBA programme or in executive education seminars. However, it may also be used in the final year of an undergraduate programme.

Suggested Student Assignment

The following questions can be assigned to students for preparation and subsequent class discussion:

- 1. What are the advantages and drawbacks for Ducati of tightening control over its distribution network?
- 2. Do you think that the Ducati decision to exclusively sell through the Internet its MH900e motorcycle model was a risky or safe bet?
- 3. Since Italy is Ducati's main market and the Internet penetration there is one of the lowest in Western Europe, is it advantageous or adventurous for Ducati to focus its business strategy on electronic commerce. Defend your arguments.

- 4. Future-wise, what Internet-based strategy would you recommend to Ducati for the near- to medium-term? Suggest specific actions to develop further Ducati's current e-commerce capabilities (including the "context" and "community" aspects).
- 5. Beyond motorcycles, how should manufacturers in other industries (e.g. in consumer goods) best leverage the Internet to capitalise on its electronic commerce capabilities?
- 6. "Success in the new economy will go to those who can execute clicks-and-mortar strategies that bridge the physical and virtual worlds."
 - Discuss the above statement and provide your views as to how companies can get the right mix of bricks and clicks in order to win the distribution channel war.
 - (Hint: You may consider one or more industries as a business context for your analysis and discussion).

SUGGESTED READINGS AND REFERENCES

The following articles (or a subset of them, depending on the course subject and the session theme) may be assigned as either background readings or articles for further analysis and discussion.

- Anderson, E. and Day, G.S. (1997). Strategic Channel Design. Sloan Management Review, 38 (4), 59-70.
- Buklin, C.B., Thomas-Graham, P.A. and Webster, E.A. (1999), Channel Conflict: When Is It Dangerous? *McKinsey Quarterly*, (3), 36-43.
- Fein, A.J. and Jap, S.D. (1999). Manage Consolidation in the Distribution Channel. *Sloan Management Review*, 41 (1), 61-72.
- Gosh, S. (1999). Making Business Sense of the Internet. Harvard Business Review, Mrach-April, 126-135.
- Gulati, R. and Garino, J. (2000). Get the Right Mix of Bricks & Clicks. *Harvard Business Review*, May-June, 107-114.
- Evans, P. and Wurster, T.S. (1999). Getting Real About Virtual Commerce. *Harvard Business Review*, November-December, 85-94.
- Simchi-Levi, D., Kaminsky, P. and Simchi-Levi, E. (2000). *Designing and Managing the Supply Chain*. Boston: McGraw-Hill.
- Slywotzky, A.J. (2000). The Age of the Choice Board. *Harvard Business Review*, January-February, 40-41.
- Venkatraman, N. (2000). Five Steps to a Dot-Com Strategy: How to find your Footing on the Web. *Sloan Management Review*, Spring.

Classroom Use

Since this case can be used for a variety of courses, the instructor may pursue only some of the pedagogical objectives stated above and/or give them a different emphasis as to best fit the pedagogical context. The teaching approach may be based on a classroom analysis and discussion of the suggested student questions following the proposed sequence, a different one or only using a subset of the listed questions. Obviously, the instructor's decision depends on the course subject, students' level, time allocated to the case, and learning objectives.

Suggested Teaching Approach

First, the teacher may start the session with an introduction to the e-business/electronic commerce concepts and to the Internet as an e-commerce platform. Depending on the time allocation/availability and the

teaching objectives for the session, he may wish to highlight some Internet issues such as regulation, security, reliability, channel costs, etc.

Then, the teacher may ask the class the following question: "Would you personally buy a Euro 15,000 motorbike through the Internet? Why or why not?" Students' answers to this question typically lead to the formation of two groups in the class: those who are willing to buy such a product through the Internet and those who are not.

Students' arguments for or against making such a purchase through the Internet represent the customers' perspective. The class should then focus on the manufacturer's perspective and analyse Ducati's e-business strategy. A discussion should take place regarding Ducati's Internet sales initiative and its possible impact on the dealer network. The teacher should ask students about future actions that Ducati should consider in order to reconcile its bricks-and-mortar and Internet activities. In this context, the instructor may ask the class: "How can a bricks-and-mortar company solve the online/off-line channel conflict?".

A broader discussion can then follow on how Ducati should strengthen its e-business strategy and sustain the first-mover advantage that it has achieved. This issue typically invites different, sometimes even opposing views from the class and creates some controversy among students. The instructor should facilitate the discussion and seek the arguments for or against a given position on the subject. He/she should conclude the class session with a wrap up of the discussion highlighting the major lessons learned from the case.