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Companies With Higher Rates Of Technology Innovation Correlate With Superior Stock Price Performance Relative To Market Averages

Prepared by PATENTVEST®

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ABSTRACT

A retrospective study was made of publicly traded companies that exhibited substantial growth in technology development as measured by the compound annual growth rate (CAGR) of patent applications. The study was carried out by measuring U.S. patent application growth rates from 2001 through 2007 (which is the only relevant period that patent application data is available from the US Patent and Trademark Office). The study revealed that the group of companies ranking in the top 10% CAGR of patent applications (50 companies) substantially outperformed the indexes: This group increased in value during the 7 yr period by 156% (median 49%) versus 20% for the Dow Jones Industrial Average, 4% for the NASDAQ Composite Index and 9% for the Standard and Poor's 500 Index.

INTRODUCTION

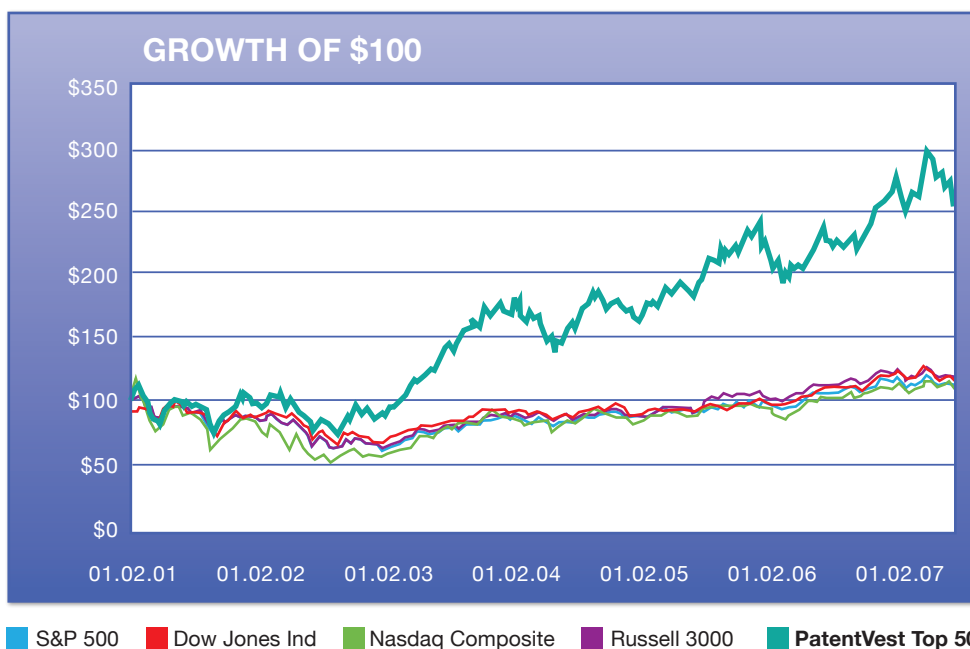
Increasingly investors seek to find new approaches to identify groups of securities that perform superior to market averages. In addition, patent information is becoming essential business intelligence for investors seeking to better understand the companies they are studying. PatentVest is a business intelligence tool developed by the authors of this paper that is designed to allow investors to more easily understand the value of patent information and to incorporate it into their investment decision making process.

During the process of marketing PatentVest several investors questioned whether there were any ways to correlate patents and better stock price performance. While the authors believed that patent information is crucial to better understand the prospects of a particular company and to identify profitable investment ideas, it was not believed that patents in general could be used to select a portfolio of securities that would perform better than market averages. Nonetheless, the authors sought to define a study to see if a correlation might exist.

The authors have been using early versions of PatentVest for several years and have observed that companies that are filing many patent applications relative to historical applications seem to indicate the company is entering a more dynamic stage of its growth. Hence, the authors believed that the best group of companies to study would be companies exhibiting the largest CAGR of patent applications.

OBSERVATIONS

Public companies that are in the group of companies that represent the top 10% of patent application growth significantly outperformed the market averages (See Table 1 and Figure 1 below).



PERFORMANCE								
INDEX	2001	2002	2003	2004	2005	2006	2007	Chg
PatentVest Top 50	\$102.64	\$ 93.03	\$173.57	\$176.77	\$219.12	\$222.16	\$250.98	156%
S&P 500	\$ 88.24	\$ 71.44	\$ 86.41	\$ 91.36	\$ 99.01	\$108.58	\$108.72	9%
Dow Jones Ind	\$ 93.67	\$ 82.39	\$ 98.09	\$ 99.46	\$102.79	\$116.28	\$120.05	20%
Nasdaq Composite	\$ 84.00	\$ 60.13	\$ 86.68	\$ 86.75	\$ 95.76	\$101.10	\$104.03	4%
Russell 3000	\$ 89.54	\$ 72.73	\$ 90.04	\$ 95.36	\$105.29	\$115.43	\$115.04	5%

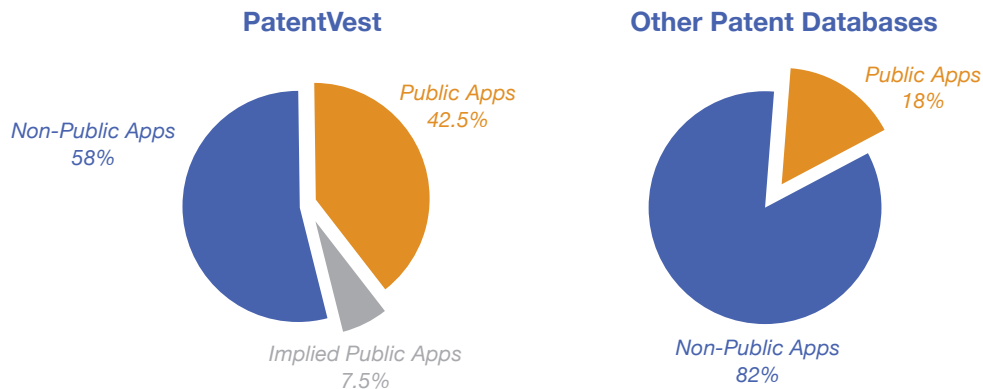
TOP 50

Ticker	Name	Market Cap	App CAGR	Apps Start	Apps End	Price Change
SAP	Sap A.G. ADS	48,895	125.69%	25	3304	78%
OVTI	Omnivision Technologies	452	110.43%	12	1042	712%
RIMM	Research In Motion Ltd.	39,408	96.50%	35	2015	1202%
ATML	Atmel Corp	1,665	86.30%	21	878	-69%
FTE	France Telecom	55,542	82.54%	19	703	-42%
CSCO	Cisco Systems, Inc.	107,226	79.40%	93	3100	-29%
ASML	ASML Holding	8,416	71.38%	81	2052	10%
SKM	SK Telecom Co Ltd	11,224	70.91%	13	324	18%
NOVL	Novell Inc	1,319	68.27%	10	227	22%
YHOO	Yahoo!, Inc.	19,365	67.24%	66	1444	63%
AAPL	Apple, Inc.	110,876	66.68%	81	1737	2098%
SLAB	Silicon Laboratories Inc.	1,273	66.16%	23	484	169%
BJS	BJ Services Co	4,129	64.06%	12	234	46%
XRX	Xerox Corp.	4,851	64.04%	350	6820	157%
LECO	Lincoln Elec Holdings Inc	1,734	62.99%	16	300	316%
DT	Deutsche Telekom	51,725	62.14%	12	218	-18%
BMJ	Bristol-Myers Squibb Co.	40,659	61.89%	11	198	-44%
JAH	Jarden Corp.	1,434	61.56%	14	249	623%
WMS	WMS Ind	1,549	61.38%	27	477	170%
NKE	Nike, Inc.	21,038	61.33%	30	529	144%
EBAY	eBay, Inc.	21,031	60.13%	21	354	310%
LEA	Lear Corp	58	59.97%	29	486	-9%
MSFT	Microsoft Corp.	181,367	59.54%	1070	17643	64%
TNB	Thos & Betts	1,468	59.15%	16	260	197%
LSI	LSI Corp.	2,444	59.01%	105	1697	-77%
S	Sprint Nextel Corp.	11,684	58.39%	19	300	-37%
MCRL	Micrel Inc	493	58.32%	12	189	-84%
MIL	Millipore Corp	3,148	57.27%	15	227	52%
AZN	AstraZeneca PLC	52,404	57.15%	101	1521	1%
MGA	Magna Internat, Inc. Cl A	3,948	57.04%	49	735	126%
AXP	American Express Co.	28,374	56.42%	34	498	16%
SNBK	SanDisk Corp.	3,328	56.22%	80	1163	111%

TOP 50 (cont.)						
Ticker	Name	Market Cap	App CAGR	Apps Start	Apps End	Price Change
ASX	Advanced Semiconductor	2,806	55.90%	56	804	106%
CREE	Cree Incorporated	2,275	55.65%	32	455	-13%
NTAP	NetApp, Inc.	5,936	55.59%	16	227	-55%
ORCL	Oracle Corp.	98,522	55.18%	169	2360	-27%
DBD	Diebold Inc	1,695	55.14%	18	251	-8%
CLX	Clorox Co. The	7,747	54.62%	15	205	129%
MSCC	Microsemi Corp	1,079	54.57%	11	150	176%
BRCM	Broadcom Corp. Cl A	10,388	54.25%	379	5105	-57%
LLY	Eli Lilly & Co.	38,066	53.88%	36	478	-24%
TEVA	Teva Pharmaceutical Ltd.	36,605	53.47%	45	588	224%
KYO	Kyocera Corp	14,419	53.24%	151	1955	-17%
TSM	Taiwan Semiconductor	46,843	53.02%	287	3685	4%
BRKB	Berkshire Hathaway CL B	43,586	52.92%	28	358	102%
BT	BT Group PLC ADS	10,321	52.66%	38	481	-29%
WAT	Waters Cp	3,658	52.64%	20	253	16%
CBY	Cadbury PLC ADS	10,005	52.34%	12	150	118%
CELG	Celgene Corp.	18,750	51.96%	16	197	705%
VAR	Varian Medical Systems	4,249	51.95%	13	160	247%

ANALYSIS

For the purposes of this study PatentVest has historically organized all patent application data by correctly assigning all patent applications to the respective companies that originated the applications. The correct assignment of these applications is not a trivial exercise as many patents and patent applications are not assigned to the parent company that originated the application. This can be seen in Figure 2 below, as evidenced by the percentage of patent applications assigned to public companies in other patent databases versus PatentVest. This process has been completed through the development of software to allow employees of PatentVest to properly assign patents, patent applications and patent reassignments. With this software approximately 15 individuals have accurately assigned these patent records over the past 4 years.



With these patent applications correctly attributed to the public companies that originated the applications, the authors selected all public companies that had at least 10 patent applications in 2001 so that companies with a relatively insignificant amount of patents would not distort the statistical analysis.

The screen of these companies yielded 539 public companies.

It should be noted that only companies that were public during the entire period were included in this study.

CONCLUSIONS

The data from this study suggest that top companies that exhibit significant growth in patent applications perform significantly better than market averages. The outperformance by this group is so superior that statistical anomalies are not likely to have affected this study. Those companies with low to moderate growth in patent applications also generally performed superior to market averages: further study is warranted to determine if companies with patent applications perform better over time than companies that do not have them.