IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 2, Issue 9, June 2022
Impact Factor: 6.252

Study on Internet Domain Names Re-Registration Market

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Abstract: *Domain name registries are important on the internet because they allow users to communicate with services and people, as the world grows increasingly interconnected and complex. Registries keep track of, identify, and locate online resources, as well as their owners. They assist individuals, businesses, and organisations in keeping track of more information and people, not only within the organisation, but increasingly between organisations via the internet. Since the most important and valuable domain names are becoming scarce, and investors are beginning to see the importance of building a domain name portfolio, various marketplaces have sprung up as a way for domain owners to profit from their assets. In today's domain world, the secondary market is where many huge organisations and end-users go to find the domains they need to augment their current on-line commercial presence. Due to the growing importance of domain names on the secondary market, this article will focus on one of the two forms of domain name transactions: re-acquisition of dropped domain names. The analysis will be based on data obtained from registrant name servers databases over a two-year period, including the number of dropped domains, the number of re-registered dropped domains, and the overall number of re-registrations. Each website has its own different identity. These websites can register their names with a domain name registrar for a monthly or annual cost. The generic top-level domain registry or the country code top-level domain registry must accredit it. The domain name registries provide guidelines for the registrar to follow.*

Keywords: Domain name

I. INTRODUCTION

Domain names are extremely significant in the context of the continually expanding internet. The most common motives for registering domain names are to promote a brand or product, to generate traffic and advertising money, and to broker domains on the secondary market. The use of non-keyword names will result in a greater investment in developing a recognisable brand. Brands founded on non-english words, such as Google or Twitter, had to be established from the ground up with massive marketing budgets.

As the world gets more linked and complex, registries on the Internet become increasingly important in allowing users to engage with information about things and people. Registries are systems that define, identify, track, and cross-reference information and objects with their owners. Individuals are helped.

Organisations must keep track of more items and people, not just within their own walls. However,

Internet-based businesses are becoming more prevalent. The Domain Name System

(DNS) is the Internet's most well-known registry system. The Domain Name System (DNS) was designed as a scalable distributed system for converting user-friendly host names into numeric Internet Protocol (IP) addresses.

Hierarchical DNS names, which are arranged from right to left, are supported by the "dot" in the name. "Name servers," which are hierarchical, dispersed groups of machines that may be accessed by "resolvers," are where the DNS's data is kept. Users cannot see the "root" or the root servers that replicate it since they are at the top of the hierarchy. Top Level Domains (TLDs), the final labels on the right side of the domain name, are levels below the root and provide information that resolvers can access. Root servers reproduce the root (.org,.com,.jp, or.fr)

There are three key participants in the DNS environment. Internet "registries" are typically thought of as domain name wholesalers who keep a central system for each Top-Level Domain (TLD).

Registrars, or domain name retailers, who are Client buy domain names from Internet registries and sell them to registrants. Finally, "registrants" are registrars' individual or reseller customers.

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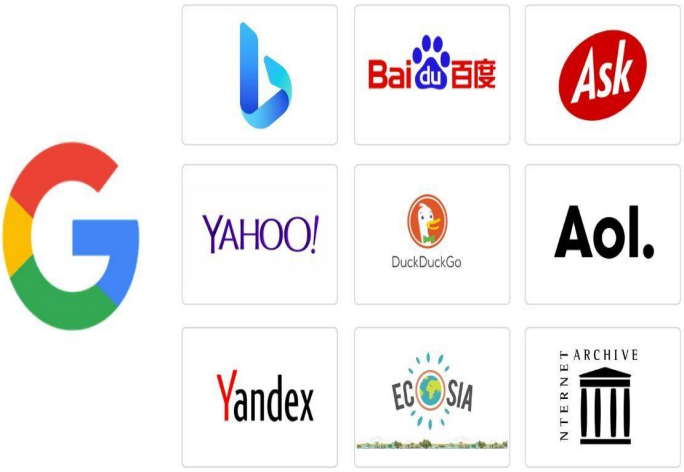
II. DOMAIN NAME MARKET VALUE

The real value of a domain name is determined by the quantity of existing or future visitors. A domain's visitors can come from three different places: I Internet search engines, which give users with a list of potentially relevant web sites based on their search keywords and past knowledge and crawling results of a domain; (ii) back-links (hyperlinks in other webpages linking back to a domain), It can be found in all types of Internet material (ordinary webpages, blogs, link directories, social media posts, etc.) and (ii) manually written URLs, because some users type generic phrases followed by most prevalent TLD suffixes (mostly.COM) and known URLs straight into their browsers' URL director textboxes (advertised by means of direct or indirect brand advertising).

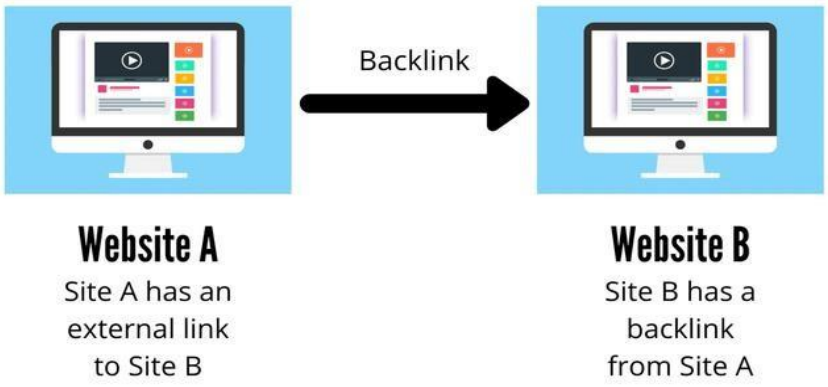
Domain names are among the most valuable digital assets available. The vast majority of them are harmful in some way. You can register them for less than $5, and maintaining is simple. With various services, web hosting include free domain names.

2.1 Internet Search Engines



Which provide users with a list of potentially interesting web pages based on the Users' search keywords and previous knowledge and crawling results of a particular domain.

2.2 Back-links



(hyper-links in other webpages linking back to a domain),which can appear in any Internet content format (standard webpages, blogs, link directories, social network posts, etc.).

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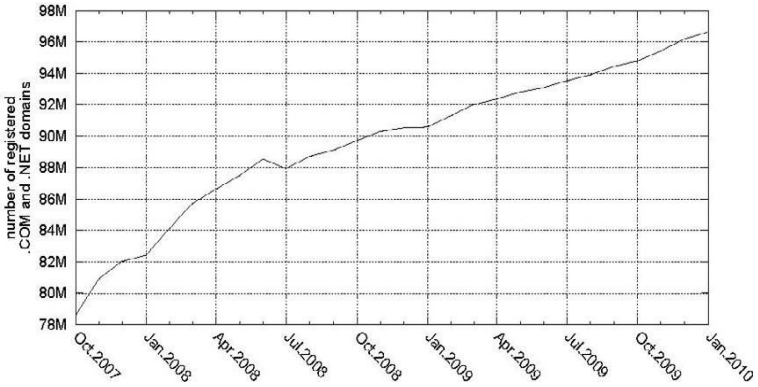
Manually written URLs, because some users type generic phrases followed by most prevalent TLD suffixes (mostly.COM) and known URLs straight into their browsers' URL director textboxes (advertised by means of direct or indirect brand advertising).

The number of registered domains had been increasing at a nearly constant rate until June 2008 , when the number of registered domains began to decline slightly. Furthermore, the rate of growth after July 2008 is lower than in previous years. The economic recession of 2008 explains these facts. With this, the number of registered domains continues to increase at a faster rate than the global economy. This also indicates the expansion of players with greater available monetary resources, as a result of natural development and provision of several depleted enterprises.



A domain name's value is relative and can be assessed from a variety of angles: I the domain's suffix or top level domain, (ii) the name size and inclusion of numbers or hyphens, whether it is a word or a combination of dictionary relevant and trendy words, variations from known domains, and the search engine optimization (SEO) performed for a domain name, as measured by search engine ranking and number of search engines ranking and number of back-links.

Country	Registered Domains	Overall Percentage
.COM	81,030,022 &	47.84%
.DE (Germany)	12,935,080	7.64%
.CN (China)	12,545,589	7.41%
.NET	12,293,418	7.26%
.UK (United Kingdom)	7,768,754	4.59%
.ORG	7,616,431	4.50%
.INFO	5,164,116	3.05%
.NL (Netherlands)	3,466,675	2.05%
.EU (Europe)	2,913,452	1.72%
.RU (Russia)	2,224,537	1.31%
.BIZ	2,024,217	1.19%
.BR (Brazil)	1,767,167	1.04%
.IT (Italy)	1,713,469	1.01%
.PL (Poland)	1,501,355	0.89%
.AU (Australia)	1,443,296	0.85%
.FR (France)	1,436,611	0.85%
.CA (Canada)	1,242,386	0.73%
.ES (Spain)	1,152,615	0.68%
.JP (Japan)	1,098,360	0.65%
.KR (South Korea)	1,019,115	0.60%
.DK (Denmark)	1,009,995	0.60%
.SE (Sweden)	881,337	0.52%
.AT (Austria)	865,757	0.51%
.MOBI	841,571	0.50%

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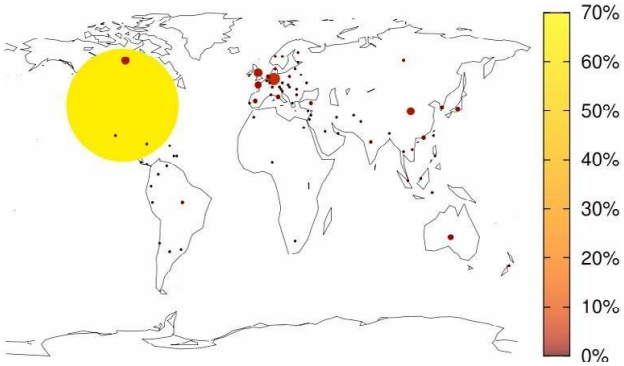

Country	Registered Domains
United States	65.3%
Germany	5.8%
United Kingdom	3.7%
Canada	3.4%
China	3.3.%
France	2.6%
Australia	2.2%
Japan	1.5%
Spain	1.2%
Italy	1.1%
Others	9.9%

Finally, and maybe most importantly, a domain name's SEO is conducted. Domain names having a high number of backlinks (i.e. hyper-links in other webpages linking back to that domain) and/or that are already known and indexed by search engines have a substantially greater market value. The SEO value is implicitly included when purchasing a domain name, which can greatly minimise further SEO and marketing costs. Search engines are index software agents that are built to look for Web sites and organise them in a logical fashion so that specific information may be found quickly. When a user visits a website, the agent collects all of the content on each page and categorises it using several parameters. The added benefit of these indexed domains comes from the fact that they are searchable.

After a domain name's expiration date, it is not instantly removed from the TLS zone files: this is known as the domain life cycle. The domain name cycle is depicted, with the various domain name statuses and transitions available. The domain register information remains unchangeable for a period of 0 to 40 days if the registrar of a given domain does not renew the domain registration by the expiration date (depending on the registrar policy). Although the standards and ICANN policies do not specify a precise domain status during this time, it is commonly referred to as the "expiration" period. Although the standards and ICANN policies do not specify a precise domain status during this time, it is commonly referred to as the "expiration" period.

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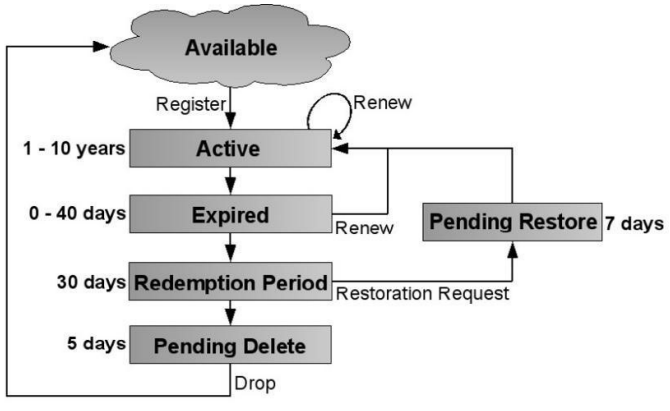
The domain registration can be renewed by the owner for a normal registration price while it is in this condition. The domain status changes to "redemption period" for 35 days when the redemption period ends, the register information is erased, but the remaining domain information is preserved on the TLD zone files. The domain can still be reactivated and re-registered by the owner, albeit at a significantly higher cost



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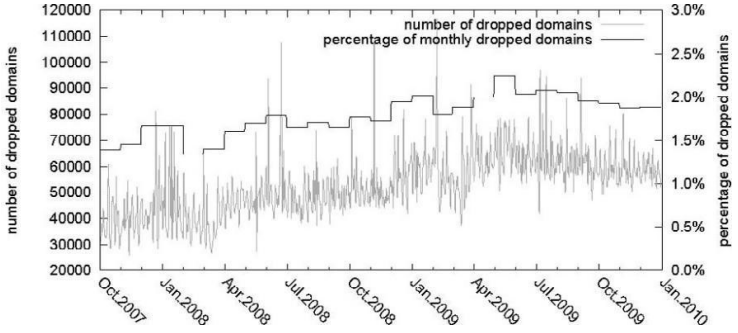
IF the owner decides to recover the domain,, he must submit a restoration request, after which the domain will become inactive for 7 days before being active again. Otherwise, the domain name will be marked as "pending delete" for 5 days, after which it will be available to anyone who wants to register it again (this event is usually called "domain drop").
aims to build a waiting list for expired domain names in order to bring order to the system of distributing deleted names and to generate revenue at a time when new website acquisitions are scarce. People who want a domain name that someone else owns can pay for the pleasure of being first in line to buy it when it expires with this service. It's simple to see how this service would effectively eliminate today's drop catchers by providing Verisign a new monopoly on the distribution of expiring.COM and.NET domains.

III. DATA RETRIEVAL AND RESULTS ANALYSIS

Due to the vast amount of data accessible and its scattered nature between the root TLD organisations and the many registrars, retrieving complete information on all lost (or soon to be dropped) domain names is exceedingly hard and takes massive computing and network resources. The most natural way to collect this information is through a two-step process: I get the root TLD file, which only contains the registered domains, as well as the relevant registrar and name servers; and (ii) ask the various registrars for registration details, such as owner contacts and domain creation, last update, and expiration dates. Due to the complexities of this process, as well as the legal and technical issues raised by the massive queering of name servers, we relied on publicly available data from NameJet.com, which publishes a daily list of all (.COM and.NET) domains in "pending delete" status, along with a date for deletion.
The weekly behaviour of dropped domain registrations shows a low percentage of recovered domains in the fourth quarter of 2008 and the first quarter of 2009, followed by an increase in the number of re-registrations that has stabilised at 8% 10% till the end of the year. Throughout the first week of October 2009, we saw a steady increase in the percentage of dropped domains that were recovered. The economic recession and subsequent recovery can explain these facts, but the unusual figures seen in October 2009 can be explained by a combination of three factors: As a result of the economic



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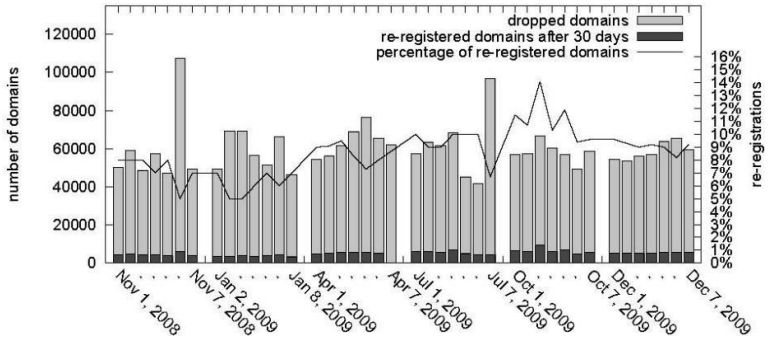
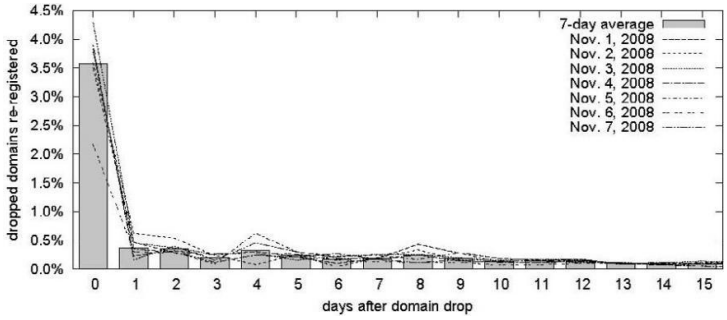
Down turn, I improved trust in the economy and financial flow availability, and (ii) an abnormal number of valuable domain names were lost. Evolution of the absolute number and relative percentage of dropped domains since October 2007.



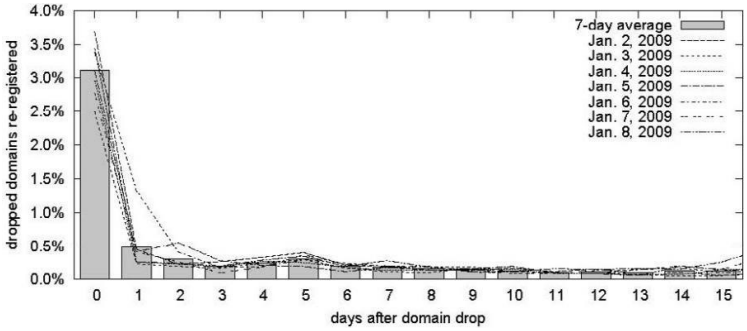
For selected weeks between November 2008 and December 2009, the number of domains lost and the ensuing proportion of re-registrations.

We identified all domains dropped in four different weeks (first week of November 2008, January, July, and October of 2009) and recorded if and when they were reregistered within the following 15 days in order to study the time interval between the day a domain becomes available and its re-registration. Figures 6 to 9 show the findings of this study, which show that the vast majority of recovered domains are registered on the same day they become available.



Domain names re-registration statistics, first week of November 2008.

A deeper analysis of the re-registered domains in term of the number of characters is depicted in Fig. 11. The overall distribution of the percentage of domain names re-registered in terms of domain length follows an heavytailed log-normal like distribution with average equal to ~11 characters and is similar to the one observed for all registered domain names. Moreover, this analysis reveals that the distribution of the domains length in terms of the number of days between drop and re-registration is similar, with the exception of small domain names (5-6 characters) that are re-registered more frequently in days 0 and 1 after the drop date.



Domain names re-registration statistics, first week of January 2009.

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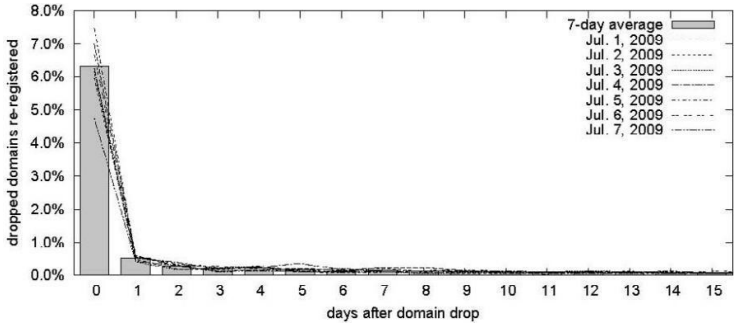
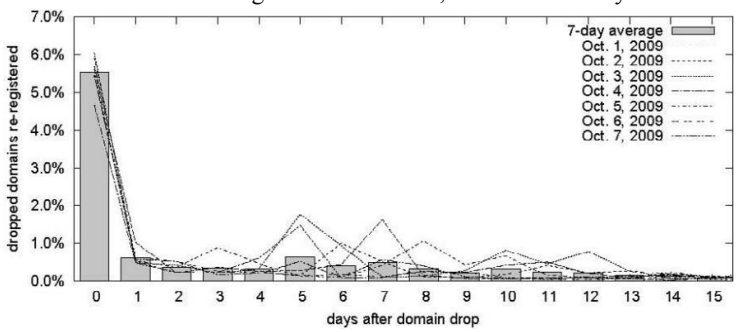
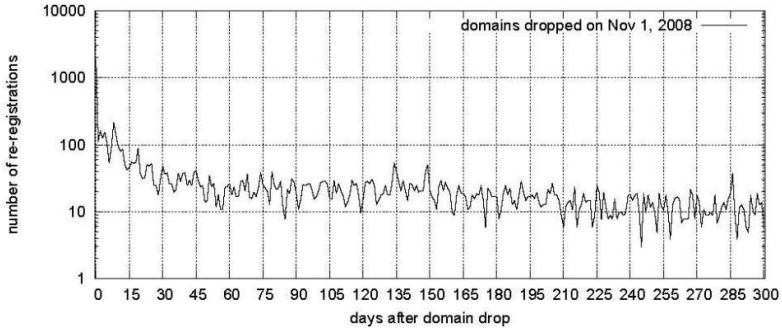


Domain names re-registration statistics, first week of July 2009.

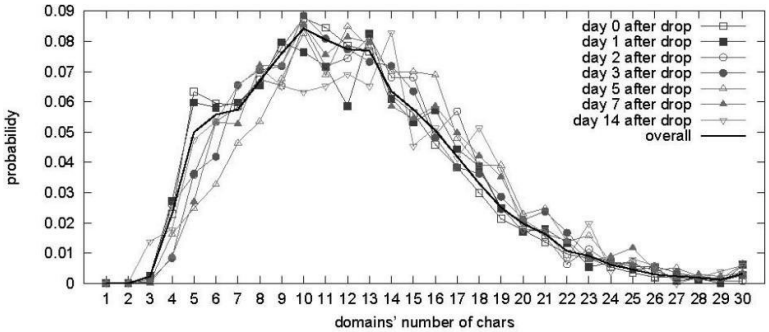


Domain names re-registration statistics, first week of October 2009.

Note that for the smaller domain names (less than 5 characters) the number of available domain names is very small and therefore no relevant conclusion can be taken. Fig. 12 depicts the percentage of re-registered domains as a function of the number of days between drop and re-registration, taking into account the distinction between domain names including only letters, only numbers, hyphens and no hyphens. This analysis reveals that names that only include letters and do not include hyphens are clearly preferred and mainly re-registered in the same day they become available.



. Domain names re-registered for names dropped in November 1st 2008.



Re-registered domain names length distribution, for names dropped between October 1st and 7th, 2009.

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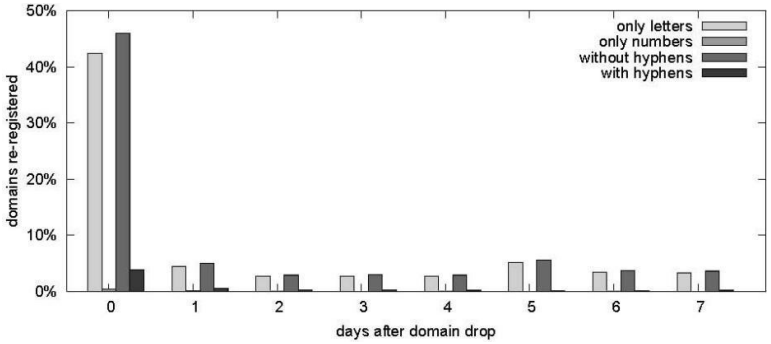
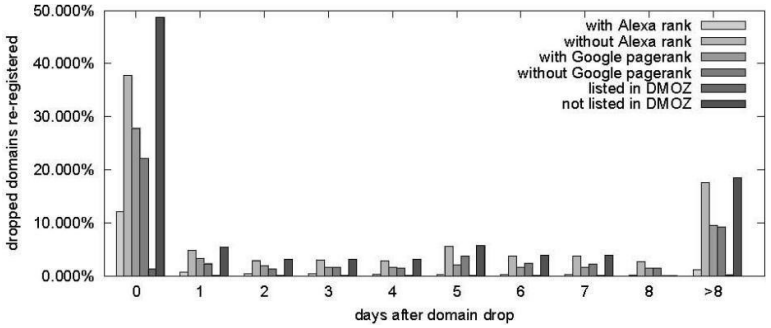
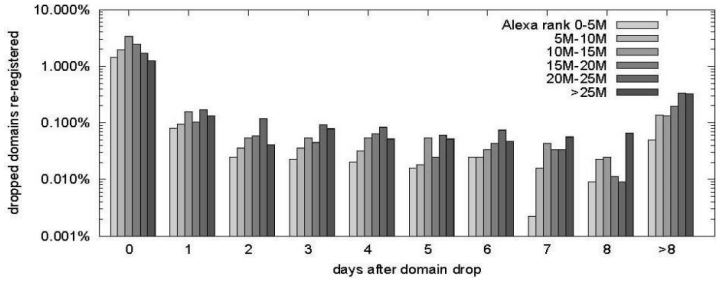


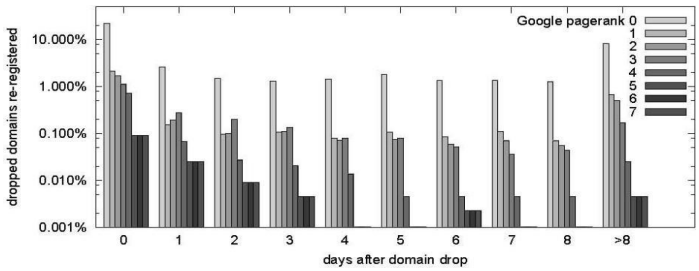
Re Re-registered domain names analysis in terms of char types, for names dropped between October 1st and 7th, 2009. The correlation between domain name ranks and the amount of time it takes to re-register a domain name is seen in Figs. 13, 14, and 15. It is feasible to infer from the study of this data that domain names with high Alexa and Google ranking values are favoured and are typically re-registered the same day they become available. Additionally, almost all of the top-ranking domain names are repurchased within the first three days of their availability. The domain ranking is merely one of many factors used to evaluate domains; it is not the only criteria because a significant proportion of domains without any ranking are also reregistered the same day they become available.



Re-registered domain names analysis in terms of Alexa and Google ranks existence, for names dropped between October 1st and 7th, 2009.



. Re-registered domain names detailed analysis in terms of Alexa rank, for names dropped between October 1st and 7th, 2009.



Re-registered domain names detailed analysis in terms Google page rank, for names dropped between October 1st and 7th, 2009.

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IV. CONCLUSION

The secondary market for domain names is fast growing in importance, and it has already surpassed the primary market for domain names in terms of both registrations and sales turnover. Because of its growing importance, this study examines one of the two forms of secondary market domain name transactions: the re-acquisition of dropped domain names. The study was based on data obtained from registrant name servers databases over a two-year period, including the number of dropped domains, the number of re-registered dropped domains, and the overall number of re registrations during that time period. In addition to the analysis of general trends, reregistered domains were examined in terms of the characters they contain as well as their Google and Alexa rankings, resulting in the creation of a knowledge base that can assist us in understanding the primary factors that influence the reregistration of a particular domain name.

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